

# KontakTUM

## Special Issue

For Alumni of the Technical University of Munich  
Spring / Summer 2019



**It was a pleasure!**

An Interview Issue on the  
Anniversary's Final Round

# HEARTFELT THANKS

TO OUR JUBILEE DONORS OF THE TUM  
ALUMNI JUBILEE CIRCLE 1868

The 150th Jubilee of the Technical University of Munich was a special year. Obviously we have celebrated our history and our present – we are after all one of the best universities in Europe. Yet, as an educational and research community the path into the future is especially important to us, and we are not treading it alone. We would like to express our heartfelt gratitude to all the supporters of the university.

Yours  
Wolfgang A. Herrmann  
President





**Dr. Verena Schmöller and Dr. Sabrina Eisele**  
from the KontakTUM editorial team.

# Such a Year!

It is one of the peculiarities of our everyday lives that there is really no such thing as an ending. While we are finishing up one project, we are already getting new ideas. Many a journey completed stirs dreams of other, still undiscovered destinations. An interaction with a person does not end with the conversation, but continues to have an effect on us. On the 12th of April 2019, TUM's Anniversary Year comes to a close. It was on this day, 151 years ago, that our university was founded. The TUM Family is now not only looking back on many years of innovative cutting-edge research, but also on a fantastic anniversary year. Everything we have experienced this year, the conversations we had, the joy we felt – all this will influence how we are going to shape the future.

Five impressive TUM Alumni whom we interviewed for you tell us about the pivotal impulses of their life journeys. Let yourself be inspired! In case you have missed one or the other event during the anniversary year, this issue will provide you with an illustrative review of the best moments. Maybe you will be able to visit your alma mater again soon. The numerous events presented in the KontakTUM Program offer plenty of opportunities to do so and, as always, TUM is cordially inviting you.

We hope you will have an interesting read.

## Successor has been voted!

*Professor Dr. Thomas Hofmann is going to be the new President of TUM. As the successor of Professor Dr. Wolfgang A. Herrmann he will take office in October 2019. The experienced university manager and TUM Alumni has been Senior Vice President Research and Innovation since 2009, and Director of the Leibniz Institute for Food Systems Biology at TUM since 2017.*

Find out more at:  
[go.tum.de/387304](https://go.tum.de/387304)

## KontakTUM Archive

With this issue we are concluding the series of four anniversary alumni magazines. All KontakTUM issues from the past eight years can be downloaded at [www.together.tum.de/en/kontaktum](http://www.together.tum.de/en/kontaktum).

150

# Table of Contents



**03 Editorial**

KontaktTUM editorial team Sabrina Eisele and Verena Schmöller on the TUM Anniversary and its inspiration Impulse

**06 Präsident zum Thema**

President Herrmann on a great festive year and the challenges of the future

**08 150 Years of TUM**

The highlights of the anniversary year in pictures

**14 What makes us grow**

Five alumni interviews

**16 Chairman of the BMW Supervisory Board Norbert Reithofer**

My family has always been my counter-balance.

**22 State Minister Dorothee Bär**

Politics is something to be learnt.

**28 Start-up Founder Andreas Kunze**

I enjoy stepping out of my comfort zone.

**34 Bioinformatics Scientist Yana Bromberg**

I want to find the origins of life.

**40 University Donor Werner Mang**

Appearance is not very important to me.

**46 We Are Grateful**

TUM is thanking the Alumni Jubilee Donors.

**K o n t a k t T U M**  
**e p u b**

in English and German  
[www.together.tum.de/en/epub](http://www.together.tum.de/en/epub)

56



62



66



## KontaktUM Program

### 52 Dialogues

TUM is making science public and accessible – listen!

### 56 Highlight

Nobel Prize Winner Joachim Frank is visiting TUM – join us!

### 58 Women of TUM

TUM is in the process of becoming Germany's most attractive Technical University for women – let yourself be inspired!

### 62 Student Initiatives

The commitment of students and alumni is impressive – see the results!

### 66 Start-ups

TUM provides optimal support for start-ups – meet tomorrow's leaders!

### 70 Learning From Each Other

The TUM Network is a vibrant place for exchange – get involved!

### 76 Dates and Activities (in German)

### 79 ABC

### 80 Alumni-Ticker

### 82 Imprint

# Committed to the **Future**

**On the 12th of April 2018, Federal President Steinmeier launched our university's anniversary year at the Herkulesaal of Münchner Residenz: precisely 150 years earlier – on this memorable Easter Sunday in 1868 – Ludwig II. King of Bavaria signed the founding charter of today's Technical University of Munich. And this TUM includes all of us!**

Back then, as well as today, it was all about the people. And how lucky we were in this regard, already in the founding year of 1868! In addition to the 23-year-old king there was the 26-year-old engineer – that innovative Carl Linde, one of our pioneers. Soon, Linde would invent the cooling principle vulgo fridge. A large brewery in Munich housed the world's first refrigerator and with Linde's Ice Machine AG, the first spin-off from a university was under way. It seems that entrepreneurship has been in our genes right from the start! Over the past 20 years, our research has resulted in hundreds of start-ups that currently provide over 15,000 jobs – a result to be proud of on top of our internationally recognised research accomplishments, which, in combination with our achievements in education, constitute the valuable 'TUM brand'.

## **Where do we go from here?**

As a technical university we have to serve society. Consequently, we are committed to driving the innovation progress in scientific fields that promise to improve people's lives, and how we live together in the long term. That is why we want to shape the important topics of the future at the frontline of research. Thus, we opened the Munich School of Robotics and Machine Intelligence (MSRM) in our anniversary year. It is breaking new

ground in making machine-based assistance systems – i.e. robots – more agile and 'smarter'. With MSRM, TUM draws its many years of cutting-edge research in Robotics and Artificial Intelligence under one roof. As its founding director we were able to enlist first-class scientist and TUM Alumni Sami Haddadin (Diploma Electrical and Computer Engineering 2005, Master Computer Science 2009). Recently, he was awarded the Innovation Prize of the Federal President and the German Research Association's prestigious Leibniz Prize. Our congratulations accompany his work at TUM.

## **A digital future**

If you want to shape the future, there is no way around digitalisation. Not only will TUM itself become digitalised and connected in its structures and working methods, we also ensure that our young talents receive the best education possible so that they will be able to master the challenges of the digital world. We recently opened the new building for the TUM Campus in Heilbronn. Here, students from the field of Management and Technology are being trained. The focus is on researching the economic change through digitisation, especially in the case of family businesses and technology start-ups. With the Heilbronn-Franken region, we are opening up a technologically leading scene of the German medium-sized companies that is unparalleled. In our anniversary year we have launched the Munich School for Data Science (MUDS). Under the assistance of powerful computer architectures and algorithms, digitised research produces immense amounts of data, which has great potential – for example for Biomedicine, one of our strong research domains. In order to make 'big data' usable, however, the data must be mastered and interpreted. To this end, we are training the next generation of researchers.





For 24 years, Professor Dr. Wolfgang A. Herrmann has been directing the fortunes of TUM, which is also his alma mater. In October Professor Thomas Hofmann is going to succeed him.

#### **Interdisciplinarity as a key competence**

No discipline is able to answer the increasingly complex technical questions alone behind closed doors. Our task is to create the best conditions for the different technical disciplines and cultures to work together. At TUM, we have early on focused on the interdisciplinary relationships of the sciences and the impending reorganisation of our internal structure – schools and integrative research centres – will powerfully perpetuate this development. Yet, connecting the disciplines also requires vigorous internationalisation; in our case this means connecting our home with the world. Thus, after 20 years of consistently working on developing the Asian region, we have once again turned our focus back to Europe: with the Imperial College London, a European flagship partnership at top-level was established in the anniversary year. In the medium term, we are aiming for a legally independent TUM.London, based on the model of TUM Asia in Singapore. Because, if you can do Singapore, you can do London and send a visible signal right into the middle of the unfortunate Brexit! As a leading technical university, we also assume responsibility for the development needs of the African continent. Strong African education, research and innovation systems will play a decisive role in the long-desired goal of global social coherence. For that reason, we have used the anniversary year to set up the initiative TUM.Africa. TUM already has around 150 projects and exchange agreements with institutions in 20 African countries.

#### **My time at TUM**

**Not only TUM is looking back on a successful time. I have also earned my diploma in Chemistry here in 1971. In 1985, I was allowed to succeed my teacher, the great chemist and Nobel Prize winner Ernst Otto Fischer, on his chair at TUM. For the past 24 years, I have directed the fortunes of this university as its president. TUM is my academic home, and its future is close to my heart.**

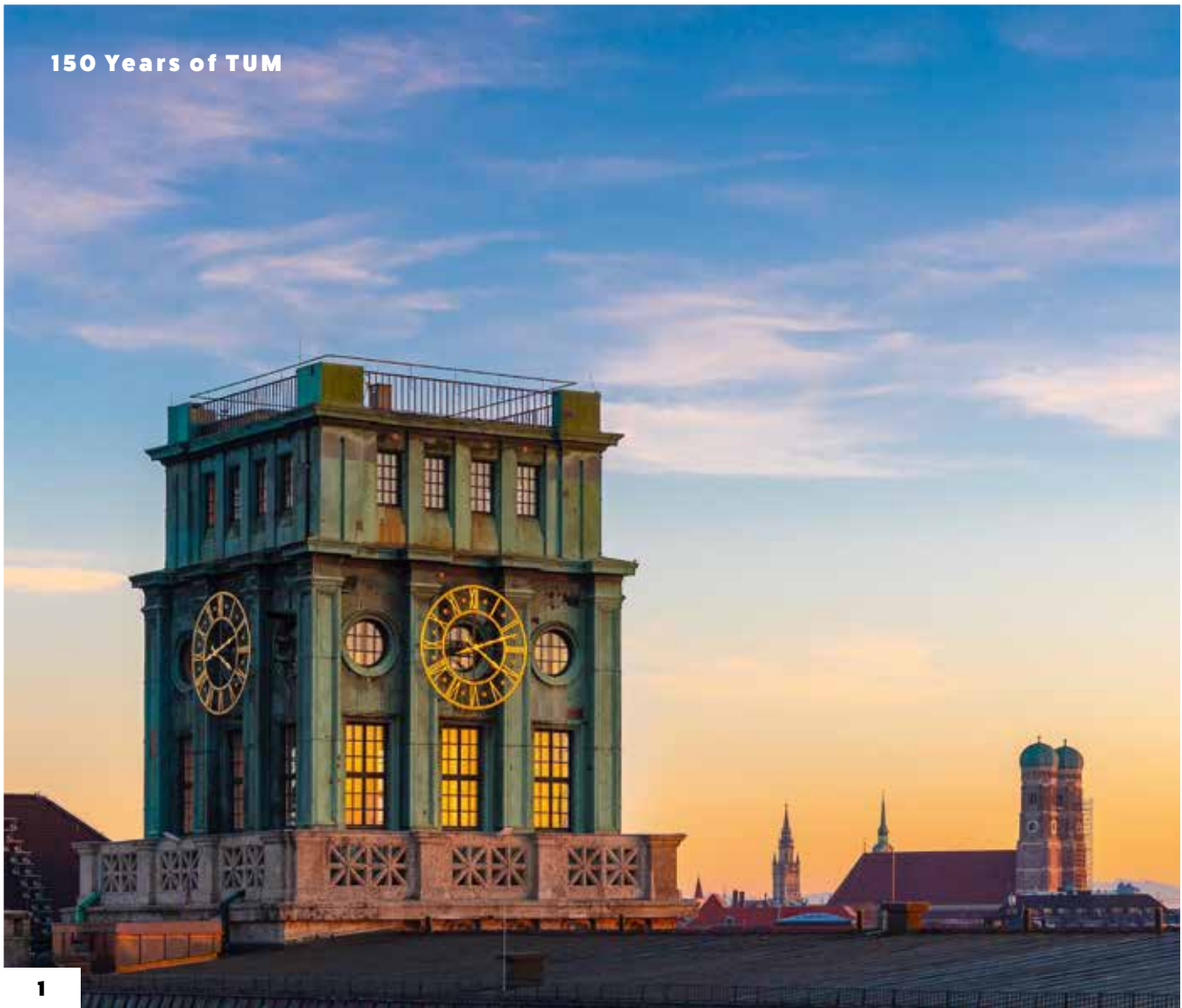
That is why I am very happy that Thomas Hofmann – also TUM Alumni (PhD in Chemistry 1995, Habilitation 1998) – will succeed me in a few months, a brilliant prospect for our alma mater. He is a stroke of luck for TUM and the academic landscape in Germany. He has what it takes to lead our university seamlessly into a bright future while placing his own accents. Please support him, just as you have always been my benevolent, loyal companions!

Bound in sincere friendship to you I remain

Wolfgang A. Herrmann

**President 1995 – 2019  
Alumni Chemistry 1971**

## 150 Years of TUM



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1

Since its completion in 1916, the Clock Tower erected by Friedrich von Thiersch has been the landmark of TUM. On the jubilee's occasion it was lavishly restored.

2

Also Federal President Dr. Frank-Walter Steinmeier attended the festive act on the 12th of April 2018 in the Herkulesaal of the Munich Residence. In his speech, he called for courageously shaping the future.

3

Chancellor Dr. Angela Merkel was virtually present at the festive act on the occasion of the 150th anniversary and congratulated TUM in a video message.

4

Minister President Dr. Markus Söder and Federal Minister of Finance Olaf Scholz presented the special issue stamp for the anniversary of TUM.

5

TUM Alumni and President Prof. Dr. Wolfgang A. Herrmann – here formally with his chain of office – was pleased about each event during his alma mater's anniversary year.

6

A lot has happened at TUM since its founding in 1868: with 12,000 students at five faculties, the campus in Garching is the largest site and forms the scientific and technical centre of TUM.





# The Anniversary Year's Highlights

Images of celebration, remembrance  
and a look into the future

**A lot has happened during TUM's anniversary year: the ceremony in Herculessaal with Federal President Dr. Frank-Walter Steinmeier, the staff celebration including a Ferris wheel in Garching, the performance of the "Meistersinger von Nürnberg" for TUM in the Nationaltheater, or the opening of the Munich School of Robotics and Machine Intelligence.**

Alumni, students and staff members have proven together throughout the year that the TUM can celebrate: the anniversary program included more than 150 events, and more than 22,000 visitors attended the TUM Open Day in October 2018 alone. Let us look back on a year filled with unique events!

Alumni, students and  
staff members:

# Every- one was There!



7

The Ferris wheel on Campus Garching went up 32 meters. This is where the annual maiTUMFest, organised by students, took place – thanks to the large scale anniversary year.

8

Karl Max von Bauernfeind was the first director of TUM as we know it now. On the anniversary year's occasion his tomb in the Old Northern Cemetery in Munich was restored. In May 2018 the TUM Family commemorated the founding director with a celebration.





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**9**  
The TUM family also came together for the performance of the 'Meistersinger von Nürnberg' at the Bavarian State Opera. Here, TUM President Prof. Dr. Wolfgang A. Herrmann is welcoming students.

**10**  
TUM celebrated its anniversary with a festive concert at the Akademiezentrum Raitenhaslach. The TUMChoir under the direction of Professor Felix Mayer sang for the first time in the Aula maior, the former monastery's ballroom.

**11**  
TUM Alumna Prof. Dr. Eveline Gottzein captivated the audience of the Women of TUM Talks in October 2018. The charming 87-year-old expert for Control Engineering talked about her career and gave her listeners valuable advice.

**12**  
At the State Opera TUM President Wolfgang A. Herrmann met the donor couple Lacher. TUM Alumni Roland Lacher is one of the initial donors of the TUM University Foundation and set up a fund for young scientists of TUM together with his wife Uta Lacher.

**13**  
On the occasion of the jubilee, TUM hosted a special performance of the 'Meistersinger von Nürnberg' at the Bavarian Nationaltheater. Richard Wagner's opera premiered in 1868 just a few weeks after the founding of TUM – then called poly-technical college.





Already in the first decades after its foundation, TUM produced internationally famous alumni. The book 'Alumni of TUM' – one of several special publications of the anniversary year – presents 78 biographies of outstanding people from TUM who are shaping society.

#### 14

On the Open Day on the 13th of October 2018, one of the King Ludwigs himself welcomed the visitors to TUM Campus in Munich.

#### 15

On the Open Day in Garching, the alumni were able to take a blue Auwärter old-timer bus from 1956 across the TUM grounds to get to know the modern research campus.





19

20



**Wonderful,**  
that you came to celebrate with us.



17

18



**16**

On the 13th of October 2018, TUM not only opened its doors, but also its laboratories and the Large High Voltage Hall of the Chair of High Voltage Engineering and Switchgear Technology at the TUM City Campus.

**17**

In October 2018 TUM celebrated the opening of its Munich School of Robotics and Machine Intelligence (MSRM) with a high-calibre robotics congress. TUM Alumni Sami Haddadin is the director of MSRM.

**18**

Also during the anniversary year, outstanding research alumni of TUM have been awarded the title 'TUM Ambassador'. You can find their portraits at [www.150.alumni.tum.de/en/ambassadors-en](http://www.150.alumni.tum.de/en/ambassadors-en)

**19**

Music unites the various generations of the TUM Family: this time the annual Advent Concerts were dedicated to the TUM Anniversary.

**20**

Looking into the future brought smiles to their faces: supported by the entire TUM Board of Management, President Prof. Dr. Wolfgang A. Herrmann signed the funding proposal for the Excellence Strategy of the German government and the federal states on the 3rd of December 2018.







What makes us grow

# Five Alumni Interviews

What does it take to grow big and strong? A good foundation, challenging tasks and a supportive community. TUM has all of this and that is why, over the last 150 years since its founding, it has become what it is today: a world-class university operating at a top level with a university family that is second to none in Germany. The five TUM Alumni we interviewed for this issue have already benefitted from this community several times in their lives. Top managers, state ministers, start-up founders, top researchers or surgeons – they all tell us about the decisive impulses on their path through life and how they contribute to mastering the challenges of the future.

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Dr. Norbert Reithofer  
Dorothee Bär  
Andreas Kunze  
Prof. Dr. Yana Bromberg  
Prof. Dr. Werner Mang

Feel like reading even  
more Alumni stories?

[www.150.alumni.tum.de/en](http://www.150.alumni.tum.de/en)

**ONE ISSUE, FIVE ALUMNI**

NORBERT REITHOFER | INTERVIEW

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CHAIRMAN OF THE BMW SUPERVISORY BOARD

**NORBERT REITHOFER**

**My family  
has always  
been my  
counterbalance.**

The manager on his education at TUM; his career at one of the most important car manufacturers worldwide and on dealing with large responsibility.



How does a student of Mechanical Engineering with a degree from a university of applied sciences become one of Germany's most important and respected managers? Straight after his doctorate, Alumni Norbert Reithofer entered BMW in a management position and learnt leadership virtually 'on the job'. As the Chairman of the Executive Board he survived the effects of the global economic crisis and advocated for more sustainability in the globally operating car manufacturer. Today, as the Chairman of the Supervisory Board, he still has strong visions for the corporation and the mobility of the future.

**Dr. Reithofer, how do you become Chairman of the Executive Board?**

One does not simply become Chairman of the Executive Board, one gets appointed.

**What do you mean?**

The Supervisory Board decides on who should be made Chairman of the Board. The position is being offered to you. Then you can accept or reject it.

**In 2009, have you considered saying no?**

That did not cross my mind. At that point I had already worked successfully for BMW for 19 years, on three different continents. Without that experience, the chairman position had not been offered to me at all.

**When you walked out of the University of Applied Sciences in Munich with your engineering diploma in 1978 you probably did not expect to be reaching the top level one day. How come you did not start working straight away but instead added another diploma program at TUM?**

I was 22 years old, so rather young for entering professional life. Also, it was four of us studying, three classmates of mine and me, and we decided together to go to TUM. For us it was a gleaming ideal. And I am not just saying that because I am doing an interview with its alumni magazine. TUM stood for quality scientific education and extremely strong theoretical foundations. We had calculated to be around 26 or 27 by the time we were done with our studies, and it seemed alright to wait with work till then.

**At TUM you have specialised in Production Engineering and Industrial Management.**

The main institute behind this specialisation was the Institute for Machine Tools and Industrial Management, the prestigious iwB. The iwB had published a job offer for a junior research assistant. By the way, the institute's professor was Joachim Milberg, who later became BMW's Chairman of the Supervisory Board.

Like that I got into iwB as a student already and kept working there as an assistant until my diploma.

**After your diploma you stayed at the iwB as a research assistant and worked on your doctorate.**

Yes, it dealt with reliability of complex production facilities. What was extremely interesting at the iwB was that we really had a lot of colleagues with very diverse skills. One of my colleagues, for example, was brilliant in programming process computers. Then I had other colleagues who dealt with linking CAD (computer-aided design) to CAM systems (computer-aided manufacturing) for the first time. As a result many of us learnt to program the machine tools ourselves. And on the side, in addition to our research assignments, we worked on industry projects, which allowed us to gain a lot of further experience. This turned out to be an advantage when I joined BMW. My first position was in the maintenance department and the people were gobsmacked when I walked over to a Max Müller Machine and ran my fingers over it and the machine did what I wanted.

**Did the connection to BMW result from the industry projects at iwB?**

Because we wanted to find out how frequently complex systems fail and for which reasons, we intensively collected data in a variety of companies. In the course of that I had met a BMW division manager during my doctorate. One day he said to me: "If you ever want a job, give me a call." In fact he got in touch first and told me he would also take me without a doctorate, almost right away and straight as a graduate engineer.

**Did you accept the offer?**

Fortunately this was only six months before submitting my doctoral thesis. The topic of my dissertation topic was so topical that I had the chance to become Head of Department straight after finishing uni. It was the Maintenance Planning Department, which dealt with availability. In this respect the knowledge gained at TUM accompanied me for a long time.

**So already in your first job you had a lot of responsibility. Were you prepared for that?**

None of us had any management experience. We had to learn it. My advantage was: I came from the university with the latest knowledge. But first I had to assert myself and learn how to lead. Already back then BMW had a very good management training program. It taught us which different roles we had to take on, in order to be good leaders. You have to be an expert and key player at the same time.

**And that was helpful?**

It made the start easier but there was another crucial thing: two years later, so still fairly soon after my doctorate, I had taken over the Control Technologies and Process Data Management Department. I told my boss back then that I had no idea about Data Processing, that I was a mechanical engineer. He was very calm and told me: "Well Mr Reithofer, then management is your only option. You might not know anything about the subject, but you have highly qualified people." My department was full of excellent computer scientists and electrical engineers and from now on I was able to rely on the technical expertise of these people. This worked wonderfully. And that is how I learnt leadership.

**Have you ever thought about staying at the university after your doctorate?**

No, not after my dissertation. There may have been one or two moments in my life in which I have toyed with the idea of becoming a professor. But not right after earning my doctorate. I was one of the few doctorates who came to BMW and started to work in a production plant. Almost all the others joined the Research and Innovation Centre. I have been asked a lot why I opted for production, even though I had worked in research for three years. But it always felt right to me.

**Why?**

If you want to get to know a business, the best way to do it is in production. Here, you fairly quickly get to the point to being allowed to manage large numbers of people. In 1991, I had just turned 35, I was managing the Body-in-White Division with 2,300 people. Here people determined: "Ok, apparently this one is able to manage a lot of people." And suddenly the CEO approaches you and says: "I realised you are able to do this. We are sending you to South Africa now." And this is how such things happen. Not with a plan, like many people think.

**You have managed two international plants.**

**You have been the Technical Director of BMW South Africa and President of BMW Manufacturing Corporation in the USA.**

South Africa has left a big mark on me. It was the first time that I really got out of Germany. I was born and raised in Penzberg, went to university in Munich and suddenly I was thousands of kilometres away. Being so far away, you are forced to make decisions by yourself. You can't call Germany all the time and ask for advice. Otherwise your supervisors might think they have sent down the wrong guy.

**What kind of decisions were these?**

I went to South Africa in 1994. That was the year Nelson Mandela became President and South Africa opened up politically. BMW wanted to export cars from South Africa to Australia, New Zealand, Japan and the US. As the Technical Director it was my job to prepare the plant for these exports. Previously the cars were only produced for the local market, and suddenly an export-oriented plant was supposed to be developed. The factory had to be modified drastically and led into the modern age. We successfully managed to do that.



Dr. Norbert Reithofer and Senator E.h. Dr. Dieter Soltmann (Doctorate Brewing Science 1970), former Chairman of the Supervisory Board Münchner Spaten- Franziskaner- Bräu, with his wife Ursula at the gala ceremony at TUM's 150th anniversary in the Munich Residence.

### **Was there something or someone encouraging you along the way?**

You should know, I have always been a rather stubborn person. My stubbornness has probably often helped me to assert myself. What is more is that we were all impressed with Nelson Mandela, he was a huge role model for us. We admired this man's courage and wanted to contribute to this country's development in a reasonable direction. Furthermore, BMW as an employer served as an example in South Africa.

### **You moved straight to the USA from South Africa. Did you bring your family along everywhere?**

Yes, my daughter was even born in South Africa. My wife and I had made the decision to go abroad, to seize this opportunity, together very rationally. For us, it was what made most sense economically. Even though it meant that my wife unfortunately was not able to work because she did not have a work permit.

### **In 2000 you returned to Munich and became a member of the Board of Management of BMW AG Production, from 2006 onwards you were the Chairman of the Board of Management. Two years later was the year of the global economic crisis, which hit the automotive industry hard. How was that for you?**

Nobody had experienced this before. We had to completely readjust to the situation that, within three months, our profits were gone. And this is how it was for two years. Imagine you have never been faced with such a scenario and then have to go to the staff meeting, for example in Dingolfing. 6,000 people look at you and expect a plan. Three months later you go to the annual general meeting. All the shareholders are there and look at you in the same way and wonder: "Is he going to get the company through that?"

### **How did you deal with this situation privately?**

Honestly: in a situation like 2008/2009, also 2010, you live almost entirely for the company. You barely exist as a private person anymore.

### **Was there anything that nonetheless served as a counterbalance?**

I passionately ski, enjoy going to the mountains in summer. Meditation is a hobby of mine. And my family has always been a counterbalance for me. Thankfully, I have a wife who has always understood that.

### **You have been working for BMW for more than 30 years: how dear has the company grown to you by now?**

BMW has enabled me to have an outstanding career, I have learnt more than I had ever imagined. But as CEO and Chairman of the Supervisory Board alike, one has to always be able to look at the company strategically, not emotionally.

### **What do you mean?**

Instead of letting present-day market successes influence me, I have to develop a strategy which will allow the company to prevail in the future. An example: in 1974 the young Kodak engineer Steve Sasson built the world's first digital camera. But the camera did not go into production yet because Kodak preferred to keep selling its valuable Kodak film for another couple of years. We all know the end of the story. In 2012 the corporation had to file for insolvency.

### **How is that related to the automotive industry?**

In the role of Chairman of the Supervisory Board I have initiated a strategic process in 2007. I wanted to open the question on how the environment is going to change for car manufacturers in the future. 70 to 80 percent of the people are going to live in urban centres, in the greater areas around London, Paris and New York or in the Asian mega cities. The average speed on the roads will be around 15 kilometres per hour.

### **Today, BMW is famous for building dynamic sports sedans.**

And we are at the top of this market segment. Yet, looking into the future has shown us that it makes sense to invest into the development of electric cars. It is pointless to narrow-mindedly hold on to past successes just as a matter of principle. Hence, we have launched our electro mobility project and developed the models 'i3' and 'i8'. The necessary decision was made well before there was any public discussion on electric cars – driven by aforementioned strategic process.

### **So BMW will soon not build combustion engine cars anymore?**

No, that is not how it works. If you want to move a company to a new technology – here I mention the buzzwords electrification, networking, digitalisation – this is going to cost copious amounts of money. And first of all this money has to be generated.



Accordingly, if we set goals today regarding the development of electric cars until 2025 or 2030, we have to keep building diesel vehicles and cars with petrol engines until then, in order to get there at all. I was taught at TUM to be reasonable and rational, so I can't just ignore this point.

**You are a very strategically and economically thinking person.**

Yes, I have to be. During my studies at TUM I had a lecture called 'Management for Engineers'. It was given by an external lecturer. He was Chairman of the Supervisory Board of a medium-sized company. He said an incredibly important sentence, which is still with me today: "The more a business is growing, the broader it must view its stakeholders."

**What does that mean?**

Everyone who has an interest in the company is a stakeholder: the state, to which the company is paying taxes, the employees, who work for the company and of course, the customers. If you act with gross negligence towards one of the stakeholders, it can have a major impact on the business' profits.

**So have you already learnt to think economically at TUM?**

Yes, even today I am still looking things up in my lecture notes occasionally.

**Really? They still exist?**

Yes, they are marked all over with a highlighter (*laughs*). It really was a very good lecture. I personally owe a lot to TUM and tell all the students: "You have made the right choice. Use it."



**DR. NORBERT REITHOFER**

**Diploma Mechanical Engineering 1984, Doctorate 1987**

Norbert Reithofer grew up in Penzberg in Upper Bavaria. Following his subject-specific university entrance qualification, he enrolled in Mechanical Engineering at the University of Applied Sciences in Munich. Subsequently he studied Mechanical Engineering at TUM with a specialisation in Production Engineering and Industrial Management. Until 1987 he was a research assistant at the prestigious Institute for Machine Tools and Industrial Management (iwb) at TUM, where he also did his doctorate. Afterwards Norbert Reithofer joined BMW as Head of Maintenance Planning and immediately took on management responsibilities. Following further positions of responsibility at the branch in Munich, he became the Technical Director of the BMW plant in South Africa in 1994, whose business concept he successfully realigned. Between 1997 and 2000, Norbert Reithofer has been President of the BMW Manufacturing Corporation in South Carolina, USA. The TUM Alumni returned to Munich as a Member of the Board of Management of BMW AG Production in 2000 and was appointed Chairman of the Board of Management of BMW AG in 2006. Since May 2015 he is keeping a watchful eye on the corporation, which has been his professional home for more than 30 years, as Chairman of the Supervisory Board. Norbert Reithofer has been awarded the Bavarian Order of Merit and was a member of the TUM Board of Trustees from 2007 until 2015. He is married and has an adult daughter.



STATE MINISTER FOR DIGITALISATION



**DOROTHEE BÄR**

# Politics is something to be learnt.

Dorothee Bär on her busy life between Berlin,  
the digital world and raising kids, and on why perfectionism  
is a show stopper.



‘Air taxi’ is what comes to most people’s mind when her name is mentioned: Dorothee Bär. But there is a lot more to the State Minister for Digitalisation – since well before she entered the main arena ‘federal government’. 84 thousand followers on Twitter, 23 thousand on Instagram. The former HfP student knows how to present herself – frequently tongue in cheek – and is at home in the digital world like hardly any other politician. For more than 20 years she has politically been dealing with digitalisation. Here, she never loses sight of her target: a digital transformation of Germany, whose new technologies benefit the people.

**Ms Bär, Twitter, Insta, Facebook. Which one does a State Minister for Digitalisation check first in the morning?**

Preferably Instagram. But most of the time I open my text messages – very traditional – because these are the most personal messages. Probably in this order: text messages, WhatsApp, then Instagram, Twitter, Facebook. I open emails last, because there are always so many. But I always try not to get carried away in the morning because it’s such a time sink. You easily lose 20 minutes. I have also disabled all push features. It would drive me insane to see all the messages all the time. This way I only see calls ... and FC Bayern goals.

**I have already been dealing with digitalisation for 20 years.**

**Since March 2018 you are responsible for digital issues on the federal level. How did that happen?**

I have been dealing with digitalisation for 20 years. I started doing that long before I was a member of the Bundestag [the German federal government]. Neither my party nor the Bundestag had many people who promote digital policies and have the necessary know-how. Consequently, the responsibility was assigned to me. My concern is: where is digitalisation and technology useful for the people? And not the other way round.

**So TUM is just the right place for you.**

Yes. Definitely. That is why I enjoy coming to TUM. Today for example, I visited the Hyperloop Team at TUM in order to find out more about the project’s technology and progress. I have already met Elon Musk

personally and I think the Hyperloop competition he initiated is extremely exciting. We can be proud to have a German team leading it. Many people could benefit from such a Hyperloop as a future mode of transportation.

**How come you are interested in technology and anything digital?**

Probably because I have parents who have always been open towards technology and computers and supported my brother and me from an early age on. My brother turned into a tech-savvy nerd and I was mainly hooked on the theoretical side of the topic. He built things, programmed and hosted LAN-parties at our house. Later on he studied Computer Science. I was a very good theorist. I came upon digital politics because he introduced me to publications, for example of Chaos Computer Club – basically literature you would not usually read as a politician.

**But then as a teenager you were more interested in politics than in LAN-parties after all. As a 14-year-old you joined the Junge Union (Young Union of Germany is the youth organisation of the two conservative German political parties, CDU and CSU), and with 16 the CSU. What gave you the idea to become a member of a political party?**

I wanted to make a difference in my home town. At 14 you already feel incredibly grown-up and I wanted to do something for the younger ones. I campaigned for the municipality to replace the broken playground equipment. I also implemented river clean-ups and anti-drug exhibitions. It was all very much limited to my local area.

**So as a 14-year-old you knew: “I am going to be a politician.”**

Not at all. Initially I did it as a hobby. And then it just happened like that. I like that you can’t really plan a political career in Germany. It’s not necessary to study at an elite university like in France in order to become a politician. Here, even a university drop-out, who worked

as a taxi driver, became the foreign minister. I think this social mobility and low-threshold is a good thing. After all, the Bundestag and the state parliaments are supposed to reflect a cross-section of the population.

#### **How did politics become your career?**

Originally I wanted to become a journalist and deliberately chose to study at the Bavarian School of Public Policy (HfP). From the first to the last day I was very happy there and would do the same all over again any day. Since the HfP is now a part of TUM, I even studied at a Technical University of Excellence (*laughs*). While studying I kept being very involved in politics. Based on that and at age 22, I was asked if I wanted to stand as a candidate for the Bundestag. Initially I declined because I thought: “Well, at this age you don’t have to.” But then at 23 I was nominated and at 24 I was voted in.

#### **What or who changed your mind?**

Edmund Stoiber. He asked me several times. Eventually I thought: “You can’t keep complaining about the parliament being full of beer-bellied 70-year-olds and then not use the opportunity to run yourself.”

#### **Then what happened with you and digitalisation?**

16 years ago there was nothing at all on this topic in the Bundestag. I went to the Culture and Media Committee’s sub-committee on new media. That was awful but my only option to deal with politics remotely related to digitalisation. There was nothing about economy, technology, education and research. Then, years later the Ministry of Transport and Digital Infrastructure for formed. I became State Secretary there because the digital sector was included in the transport sector. When the time came to finally create a separate domain for digitalisation, my party leader specifically chose me based on my years of experience. Something which is not always done in politics, because it’s not always necessary. But in this case it was obvious of course. I already had a certain standing.

#### **Politicians are being criticised a lot and the media oftentimes is not very nice. What motivated you to carry on and to steadily climb the political ladder?**

Repeatedly there were moments, such as the regional assemblies of Junge Union, the national conference and of course the debates, in which I knew: “That’s why I am doing it.” To fight for the best ideas, to struggle, to stand up for something and then win from time to time, or lose from time to time– that is what fills me with enthusiasm. Yet to me, moments of success are not praise but important lessons on how to gain majorities in a democracy. That is not something trivial. After 16



Dorothee Bär visits technology fairs worldwide, talks to developers and meets students who are shaping the future. At TUM she talked to Vice President Dr. Hans Pongratz (back left) and the TUM Hyperloop Team, whose Hyperloop is currently the international benchmark with 467 km/h. More info at: [www.150.tum.de/geschichte/highspeed-kapsel](http://www.150.tum.de/geschichte/highspeed-kapsel)

years in the Bundestag I strongly believe: politics is something that has to be learnt. Somebody who started very early, who spent his or her free time advocating for a certain topic, sometimes for years, will be able to cope differently with occasionally being defeated by a political group. Someone new to politics, who never learnt how to win a democratic voting will frequently just say: “This is how we do it” when in charge. And then everybody has to do it that way because he or she is the boss.

#### **Have you experienced such a boss?**

Yes, these personalities are especially noticeable in the media (*laughs*). Yet, this is not always the best approach. Naturally, one can argue about whether a majority vote is always the best option, too. But I believe our form of government is the best. Even though it frequently is laborious and time-consuming, which presents immense challenges to us, especially in digitalisation.

**Which challenges are these?**

We have to make the leap from a successful industrial nation to a digital nation, but without betraying our values. We strive for a value-based, ethical digitalisation, in which discussions and progress must not exclusively be driven by technological progress. That sets us apart from many other countries. This is only possible if you have learnt how to do politics, and if it's not the end of the western civilisation for you to lose a vote or to be criticised from time to time.

**Which strategies do you still have to digitalise Germany?**

One of our most recent projects is the Federal Government's Digital Strategy. Here the aim is for all public services to be available to citizens online. However, on a large scale it does not make sense to develop a strategy for the next 20 years. The digital world is changing so quickly that one or two years later everything can already be outdated again. I am convinced that we could be all the way on top if we overcame our typically German tendency to be nay-sayers. For science this is an important development, too. Imagine a near future in which 'Made in Germany' is also a quality label in the area of artificial intelligence or Blockchain.

**Do you remember the first time you were criticised in politics?**

Eight away with 14. The Junge Union did not exactly have a feel-good atmosphere. Back then, I was almost the only girl. If there were women, they were already very old – around their mid-, end-thirties (*laughs*). Even at that time during my voluntary work I needed a very high frustration tolerance. When I came home and was upset about something I always hoped my parents would comfort me or my father would say: "Oh dear, you poor thing." But he didn't. He said: "Thick skin or quit." I didn't want to hear that but it was of course correct and eventually got me this far.

**Today you are a parent yourself. How do you support your kids concerning their future? For example with regard to gender stereotypes and women in MINT?**

I take my kids everywhere and show them a lot of technology. At the moment our son is ultra-interested and the girls not so much. The middle one is seven years old and my brother gave her a robot kit for Christmas. I have to admit, in the first seconds I thought: "Why is he not giving that to our son?" In the next split second

I scolded myself for thinking that. Because even though she might not totally be into it yet, it is important to offer it and that all of them have the same opportunities.

I gave a Canadian friend's shirt to my oldest daughter that says: "Girls love Math". In Germany all there is are shirts roughly saying: "I am an idiot at Maths". I always encourage her: "You have to tell yourself every day: 'I LOVE MATHS!' and one day you will." She is not entirely convinced yet (*laughs*), even though she is very good at maths.

**How digitally do you raise your children?**

I pay a lot of attention to quantity and quality and am strict, especially because I know the bigger picture. This frequently leads to discussions. Of course my children see me use digital media all day long and I have to explain the difference a lot. But I don't keep them away from 'evil dangers'. Instead I am trying to raise them in a way that allows them to navigate the analog-digital world in the best possible way. This also applies to conventional TV. On an Advent Sunday they showed the classic fairytales from Czechoslovakia on TV. Here I made an exemption and they were allowed to watch more than just half an hour. But otherwise I usually set a timer.

**What about apps and smart phones?**

So far only the oldest has a mobile phone. I have the code and could access it anytime. But I don't have to. She is very reasonable. However, to still have sovereignty is important to me. But I don't keep my children away from new technology. My son used to be very wild when on the changing table. In the three minutes it took me to change him, he was allowed to use an app that is about combining two puzzle pieces. He never fell off the changing table, looked at the app for a few minutes a day and all was well.

**Your husband is a full-time politician, too.****How do you both organise family life?**

Interestingly enough only I get asked that question, never my husband, even though everybody knows how extensive my job is. We both share the joy in being committed family people with large families. My husband grew up in a three-generation household, for me it was four. We are happy for our family to support us. Not everybody likes that. Many parents don't want the grandparents getting involved in the parenting. We believe that children should have a legal right to grandparents.



**Despite your stressful job you are spending lots of time with your kids and attend to your 'motherly duties'.**

My motto is: where there's a will, there's a way, somehow. But it's not like every day is perfect in my life. And of course you can't plan ahead for ages because something unexpected always happens. And, obviously, organisation is a big part of it but you can't organise life down to each minute. With kids you need a lot of talent for improvisation, starting from day one. But this doesn't just apply to working women. You can't take everything so seriously and strive for perfection at all times.

**Can you give us examples here?**

When my daughter was still little I decided: I don't have to win the award for the best cake at the kindergarten party. You have to disengage yourself from this competition to outdo one another, which especially mothers put on themselves. For example, I can't clean up after my kids all day long. Sometimes our home looks like it has been hit by a bomb. But well, that's just how it is. Taking on the pressure of what a mother is supposed to master nowadays, that's not an option at all. That is what breaks people.

**Isn't it also the digital world, which particularly drives this competition to be perfect?**

Through social media it is definitely harder to disengage from it. Sometimes I see on Instagram how parents post their children's dinner: the cheese is being cut into star-shapes and with the help of a cookie cutter the cucumber takes on the shape of a cloud. And then everything is being prepared to perfection. At our house we sometimes make a sandwich with liver sausage. I could not post my kids' food. It's simply not an insta-match. But for me, that is totally fine.



## DOROTHEE BÄR

Studies at the Bavarian School of Public Policy (HfP)  
1999–2003

Dorothee Bär is State Minister in the Federal Chancellery, Federal Government Commissioner for Digital Transformation, CSU parliamentarian, mother of three children and a huge FC Bayern fan. She grew up in Ebelsbach in Lower Franconia and started her political career at age 14 at the Junge Union. Two years later she joined the CSU. After graduating high school she studied Politics at the Bavarian School of Public Policy in Munich and, at the same time, was involved in the Association of Christian Democratic Students [Ring Christlich-Demokratischer Studenten, RCDS] as the regional chairperson. After her intermediate diploma she switched to the Otto Suhr Institute for Political Science of the Free University in Berlin, where she completed her diploma in 2005. Already at age 24, and while still in her studies, she became a member of the German Bundestag. In 2003 she was elected Deputy State Party Chair of Junge Union Bavaria and in 2008 Deputy Federal Chair. One year later she assumed offices as the Deputy Secretary General of the CSU and Spokesperson of the CDU/CSU Parliamentary Group for the Division Family Affairs, Senior Citizens, Women and Youth, which she held until 2013. She already had a chance to prove her digital know-how as the chairperson of CSU Netzrat (since 2010) and CSU-net (since 2011), and since 2013 as the State Secretary for Transport and Digital Infrastructure.



START-UPFOUNDER

**ANDREAS KUNZE**

**I enjoy  
stepping out  
of my  
comfort zone.**

The young entrepreneur on his inconvenient studies at TUM,  
his experience at Silicon Valley and a life in the fast lane.



Andreas Kunze matches the word high-flier like nobody else. For five years the 28-year-old has been CEO of his start-up KONUX, which develops systems combining sensors and artificial intelligence. Since then Andreas Kunze is jetting around the world and back and forth between the offices in Munich, San Francisco, Paris and Tokyo. He is meeting important entrepreneurs of Silicon Valley, as well as Chancellor Angela Merkel and other political heavyweights. As a 'Technology Pioneer' he was an invited guest at the World Economic Forum in Davos in January. Here, leading experts get together to discuss current global issues.

**Mr Kunze, what is special about your start-up?**

We are using sensor data to make a statement on an asset's 'state of health'. This could be an elevator, a pump or a switch. Meanwhile every asset has numerous sensors used for control purposes. We changed the conventional approach and thought about what else the sensor data could be used for. Namely to predict how stable an asset still is at the moment and when it will probably fail. This helps to schedule repairs better and to postpone them to times of lower capacity utilisation. Thus, in the event of repair, it's not necessary to bring the entire operation to a halt.

**One of your biggest clients is Deutsche Bahn.**

Yes, railway systems and switches are our core business. We want to make a contribution to trains being more on time in general. In Europe nearly 20 percent of all delays are down to switches. Each country invests billions into repair and maintenance. A lot of it is done manually. That means, people go out there and visually inspect, perform individual measurements, write protocols and so forth. Our technology changes that now: attached to the switch is a kind of high-end mobile phone, only much more robust, that measures the relevant parameters. These are transmitted to the artificial intelligence system and compared to data of 'healthy' switches. Should there be any deviations, one can take a closer look, analyse where the problem is and schedule an inspection or a repair.

**But this market is very specific since there usually is only one major railway company in each country.**

True. But we are already successful in three countries. Germany, Sweden and France has our systems. Soon Japan will join. This will be the first time that we are leaving Europe. But due to the client situation we had to think internationally from day one. In two years time we want to operate in more than a dozen countries. That's an ambitious target but we are well under way.

**Leading experts are apparently convinced.**

**Last year at the World Economy Forum in Davos, KONUX was already honoured as one of 30 Technology Pioneers worldwide. These include young businesses from all around the world, whose work will decisively influence economy and society.**

We are very honoured and proud that we have been acknowledged as pioneers in the fields of the future Artificial Intelligence and Predictive Maintenance. A selection committee of more than 60 academics, entrepreneurs, and venture capitalists, many of whom notable members of society, is choosing the start-ups. Past Technology Pioneers include major players such as Google and Twitter. In the past five years, only three other German companies have been nominated apart from KONUX.

**Your start-up is also one of the fastest growing start-ups in the field of Artificial Intelligence in Germany. Does this development scare you sometimes?**

No, never. My mentor once endowed me with a phrase: "You have to believe in your own destiny."

**What does it mean to you?**

I am convinced that you have to believe in your own concept and in what you want to achieve. How else are you supposed to persuade other people to give you money, or to join you on the journey? Even when things don't work out it's important to keep believing in it and to continuously improve. That's the only way to grow.

**Have you inherited this positive attitude from your parents?**

I am not from a family of entrepreneurs. My mother used to be a part-time accountant in a small company. My father is a civil servant at Bayerische Versorgungskammer and has a law degree. They are both not the most venturesome people.

### **So where did your entrepreneurial spirit come from?**

I got very lucky with the people I met during my studies and in the initial stages of founding the business. My personal mentor is Andy von Bechtolsheim, one of the first Google investors – also a TUM Alumni by the way. He knows his way around Silicon Valley extremely well, has created multiple start-ups and knows first-hand what's important. Also while studying at TUM I kept meeting amazing people, such as Oliver Bücken, who founded for example bücher.de and was a lecturer at TUM. It's not without good reason that we filled the KONUX Board of Directors with top-level people, who contribute a lot of experience in Information Technology and in starting a business. The first and most important thing you should learn as a young entrepreneur is that you basically don't know anything and have no experience. But we want to join the big players and thus have to see where, and from whom we can learn a lot in a short time.

### **You were born and raised in Munich and after finishing high school enrolled at TUM. Why did you choose the program Information Systems?**

I attended a high school with an emphasis on economics and wanted to pursue this direction, but with an additional technological focus. However, not one too strong. When I was already involved in my Information Systems degree it was a bit of a shock, because I didn't expect it to still be 80 percent Computer Science in the program (*laughs*). That was pretty inconvenient for me, but very important.

### **What do you mean?**

If you are very comfortable in a situation, nothing ever changes. But the way it was, I had to get into the mindset, read a lot and I tried to find other people who were facing similar challenges, and with whom I could then tackle them as a team. And one of these 'someones' I struggled through the Computer Science lessons with is now our Chief Financial Officer Maximilian Hasler. Based on this experience at uni I now enjoy deliberately stepping out of my comfort zone.

### **You met your co-founders Vlad Lata and Dennis Humhal at TUM, as well, right?**

Yes. In my fourth semester I participated in the Manage&More Program at UnternehmerTUM, the Center for Innovation and Business Creation at TUM. Here, students from different technical backgrounds work together and here I met Dennis, my future co-founder, who studied Mechanical Engineering. Vlad and I both attended courses at the Center for Digital Technology



Andreas Kunze together with his mentor Andreas von Bechtolsheim. The German computer scientist and entrepreneur studied Electrical Engineering at TUM and now lives in Silicon Valley. Amongst other things, he was one of Google's first investors and gave Andreas Kunze a crucial stimulus in starting up KONUX.

and Management, whose focus is on supporting highly gifted students and promoting entrepreneurship. Having finished my bachelor's degree, I added the master's at TUM and shortly after we already had our business idea. So in my second master semester I attended the business plan lectures at TUM in order to get all of it out of my head and onto paper. The third semester should have been the thesis' time. I wanted to write it at Stanford. I had a research scholarship. But then everything took a slightly different turn in the US.

### **What happened?**

Instead of focussing on our studies we started to look for investors in the US (*laughs*). Vlad and I moved in with Andy von Bechtolsheim, one of our current investors, into a room above the garage. This was the jackpot for two reasons: first of all we didn't have to pay rent and second we lived with someone who was an infinite source of knowledge.

**How did that come about?**

I had already met Andy previously at an event in Germany. He is usually dressed very neutrally. In any case, we stood next to the orange juice and talked about what I was up to. I didn't even know who he was. I told him that we are dealing with database optimisation. At some point he asked me to sit at his table for dinner because he found the topic fascinating. He was the one who encouraged me to go to Stanford and the Silicon Valley.

**Did this idea immediately convince you?**

I laughed and asked him who was supposed to pay for that. He said: "If you are willing to invest in the flights I will make sure that you get to know the most important start-ups and the relevant people." In the same night I looked for flights, on the next day I got the confirmation that the offer still stands and then that summer, I flew over. Because rents are incredibly high there, Andy offered us to move into the room above his garage.

**And how did you experience Silicon Valley?**

I was only 21 at that time. I saw all these CEOs, who were around 30, and which technology they had brought out. I thought: "Well, what they are doing isn't rocket science either and they are already managing companies." This obviously didn't match the German picture I grew up with. Over here, one usually joins a company, becomes a manager at some point and then, as a 50-year-old plus maybe CEO.

**Have these observations encouraged you to start your own business?**

Definitely. But back then I thought I had to go to Stanford to use the ecosystem there to upgrade my ideas and to become CEO. In retrospect this proves to be a slightly exaggerated view. Over there, they all put their pants on one leg at a time, too. The local ecosystem does indeed offer many possibilities but also here in Germany the situation for start-ups has improved a lot.

**What do you mean?**

If you look at Silicon Valley like an ecosystem then it only developed because start-ups shared their profits with their employees. When Facebook went public there were suddenly more than a thousand new millionaires and several new billionaires. The same with Google and over there this happens every year. These employees again create new companies and invest in new businesses because of their experience in the first start-up, and like that it goes on and on. In Germany we are only at the beginning but I think

especially for Munich chances are good that we can establish an ecosystem. Frequently one of the location advantages required is a good university, ideally a good technical university, since the major companies are the tech-companies. Luckily we have such a university *(laughs)*.

**Have you implemented profit sharing in your own company, as well?**

Yes. When we set up the business we decided: "More shares than we are holding as founders will go to the staff pool and everyone joining us, in turn receives a share of it." A resulting additional effect is that we either all win together or lose together. It works pretty well.

**At the moment it looks like you are winning.**

It is indeed a massive difference to 2014 when we started out and were so small. Back then we had a capitalisation of 4,000 euro. That was everything we could somehow scrape together. Now we have collected a little more than 50 million US dollars and already have more than 50 employees. In this quarter alone we are hiring about 20 new people. It's strange but somehow this has all become normal by now.

**If you are very comfortable in a situation, nothing ever changes.**

**Was there anything in the last years that did not go so well?**

In the very beginning we made the mistake of hiring mostly people very similar to us. They were all in a similar age group with similar technical backgrounds. Initially this felt good because you reach agreements quickly and get along really well. But the problem is that your own perspective, which in the case of us young entrepreneurs was not very broad yet when we started the company, could not broaden like that. Meanwhile our team comprises about 17 nationalities. Our people join us with completely different experiences and at different ages. We are discussing more but this adds a positive dynamic and a holistic view to decisions.



**One of your office doors states the date 04.2024.  
What is happening on that day?**

This is when we aim to go public in the US. Ideally we will be having several hundred employees that are involved in the company ownership by then, and who will receive disproportional amounts of money – and will start companies or invest. In that case we will one day have Germany's largest ecosystem for start-ups in Munich – and not in Berlin (*laughs*).

**And what's next in your private life? Can the founder of a start-up also be a family person?**

I am now 28, so I still have some time left to do that. Currently all my attention goes to KONUX. My family and friends are supporting me in doing so. Right now this is my focus and I don't really think about anything else. But I don't work through the weekends anymore. The initial years were a bit crazy: not a lot of sleep. You think through the entire endeavour again and again. Today I can look out for my work-life balance more. Occasionally I go to the mountains or to a lake, skiing or hiking. I would like to read more, if I had more time.

**How do you spend the time on the plane to the US?  
Working?**

Either sleeping or working. Because I fly intercontinentally a lot, whether it's to Tokyo or San Francisco, I mostly have good wifi. This is a good opportunity to get work done that would otherwise pile up since you are a lot less distracted than in everyday office life, which is all about getting from one meeting to the next.



**ANDREAS KUNZE**

**Bachelor Information Systems 2013**

After graduating from a high school with an emphasis on economics in Munich, Andreas Kunze opted for a degree program in Information Systems at TUM. Here he met his future co-founders Vlad Lata (Bachelor Information Systems 2012) and Dennis Humhal (Bachelor Mechanical Engineering 2012, Master 2015). During his subsequent master program Andreas Kunze went to Stanford University in California on a scholarship in 2014. Together with Vlad Lata and Dennis Humhal he started the company KONUX, whose CEO he is today, at the same time. KONUX combines smart sensors and AI-based analytics to enable higher train punctuality and network capacity through predictive maintenance planning and an optimised utilisation of railroads. KONUX closed a 33 million US Dollar Series B funding round in early 2019. Andreas Kunze is one of the World Economic Forum's 'European Digital Leaders', as well as a Member of the Expert Advisory Board for Artificial Intelligence at the Bavarian Ministry of Economic Affairs, Regional Development and Energy and a 'European Young Leader under 40'. In 2017 KONUX has received the TUM Presidential Entrepreneurship Award, which annually acknowledges outstanding spin-offs, whose business idea significantly rests on research conducted at TUM.

**ONE ISSUE, FIVE ALUMNI**

YANA BROMBERG | INTERVIEW



BIOINFORMATICS SCIENTIST

**YANA BROMBERG**

# **I want to find the origins of life.**

Research Alumni Yana Bromberg on Bioinformatics,  
a gymnastics ball that changed her life and on why  
everyone is the architect of their own good fortune.



In 2009 Yana Bromberg visited TUM for the first time as a post-doc. Today – ten years later – she is an internationally successful professor for Bioinformatics and remains closely linked to her former host university. She is visiting Munich regularly to exchange ideas with TUM professor Burkhard Rost and also to meet the numerous friends she has in the city, because work and pleasure are inseparable for the researcher from the US. Yana Bromberg believes that success is achieved by setting clear goals and making the right decisions. Not only her own research is important to her but also supporting talented young scientists.

**Ms Bromberg, born in Ukraine, raised in Brooklyn, PhD at Colombia in Manhattan, now a successful career in research – on an international scale. It almost sounds like a cliché. Are you the embodiment of the American Dream?**

It seems like that (*laughs*). I came to New York with my parents with the last wave of Soviet refugees in 1992. As an immigrant child it was naturally hard at the beginning. I picked up English very fast, as I was still at an age where languages are picked up easily. But I missed my friends in Odessa very much. I went to high school in Brooklyn, to college in Long Island, to grad school in Manhattan. So, I'm pretty much a New Yorker by those standards. Today I am a professor and scientist in Bioinformatics. Maybe my career is actually a bit like the American Dream.

**What exactly does a Bioinformatics scientist do?**

Bioinformatics uses biological data to model computer-supported simulations of biological systems. It's no longer necessary to carry out real experiments.

**So there are no pipettes and glass flasks in your lab?**

No, only computers. I find biology laboratories awful – especially pipetting. I did an internship in Plant Pathology over the summer between my sophomore and junior year, non-stop pipetting – that was terrible for me.

**Biology and Informatics. Probably still an unusual combination in the late nineties when you studied. Have you already wanted to go into research back then?**

No. I wanted to be a medical doctor. My great-grandmother was a doctor. She died in the war. My grandmother grew up without her and missed her very much, and she encouraged me to become a doctor. In high school we had to pick a major, and I picked Pre-med Biology. I went to school with a lot of Russian immigrants, and many of them studied Computer Science. So I was one of the very few doing Biology.

Then – four years after I came to the States – I applied to study Medicine at all these famous, big-name universities. Everybody, except MIT, accepted me. That was kind of nice, but then came the disappointment. My parents had no money to pay for my school – we had just come to the US a couple of years earlier with nothing and were still setting up life in a new country. However, they had good jobs, so I didn't qualify for need-based scholarships. And as I was only 16 years old and not yet of age, I couldn't get a student loan. We could not afford those studies.

**That must have been hard.**

It was a very difficult and emotional time. The only solution I saw fit was to give up on the idea to study at the famous expensive schools. I first went to Stony Brook University to study Biology in preparation for medical school. It's a very good state university in New York. I went there and because it was 'next-door', half of my high school went with me. Everybody was doing Computer Science and I was doing Biology.

**And then you also caught the Informatics bug?**

At a college party I was talking to a friend of mine who studied Computer Science. He was trying to provoke me, saying that I had no idea what it's like to really work, saying that biologists had an easy life as scientists. This aroused my curiosity and ambition, and I took my first Computer Science course. I liked it so much that I took another course right away. I thought at the time, "It probably is a good thing to have something unusual in my CV when I apply to medical school later". And so I began to study Computer Science in addition to Biology. And by year three I realised that I liked Computer Science so much, I didn't really want to go to medical school anymore but instead cure diseases through Biology and Informatics.

**You realised that you wanted to go into research?**

Yes. But, to be precise, it actually happened in two steps. First, during my final thesis at Stony Brook with Professor Moises Eisenberg. He is a physicist, but he

had a project for me ‘proving’ evolution by investigating the similarity of the genome of the worm *C.elegans* to other organisms. I was supposed to take the worm genes and create sequences of the same length. I would then try to align them to other organisms to see if other organisms have similar sequences. The thesis was that the worm would have significantly more similar sequences to other organisms than my random sequences. In retrospect it was very simple, but this was the first time I ever came into contact with this type of research. I was thrilled.

### **And the second step?**

While I was still writing my thesis, I got a place in 2000 at the Summer School of the Weizmann Institute in Israel with one of its most renowned researchers, Dr. Doron Lancet. I had to write codes for updating GeneCards – a biological database and was working on this in a group of outstanding people. We spent eight weeks researching together, and we also spent time together outside the lab. It was a very intense time, but an unbelievable feeling. I was intoxicated, and it just clicked for me. I knew all of a sudden that research was the right thing for me. It was the right time and the right place for me, and that’s where I got the right credentials for my subsequent research career.

### **The right time, the right place. Do you believe in destiny?**

Things happen and then we make our own destiny. The next 24 hours have infinite possibilities for you. You could be walking down the street and run into somebody who offers you a job paying a million dollars a year. You can then take it or not – your choice. Or take another street and meet nobody.

### **This takes us back to the American Dream. So everyone is the architect of their own good fortune?**

Everyone makes their own choices. There is basically nothing that prevents you from doing something. From where you are right now, the world is open to you. We just tend to give much more weight to what has happened to us, than to what we actually initiate and decide ourselves. If you do the things that you are supposed to do, the things that are supposed to happen, will happen.

### **Is your PhD at Columbia University an example of that?**

Basically, yes. I was just 20 years old at the time, wanted to stay on the East Coast and wanted to do research on diabetes at all costs. Even then I really wanted to cure the disease. I didn’t just want to



For TUM Alumni Yana Bromberg pleasure and art are inseparable from her work and research. Between the computer lab and management tasks, the high-ranking scientist therefore likes to express her artistic, creative side through fashion.

study it. Shortly before that, a Medical Informatics program had been started at Columbia. After I had been accepted, I went directly to Rudolph Leibel, the diabetes expert. I wanted him to be my study advisor and was able to convince him to take me on. However, he said: “I can direct you in pipetting, but that’s not what you want to do, so, you need to find yourself an advisor who would take you on from the mathematical perspective.” I looked at all my options – a difficult decision when faced with so many outstanding scientists. In the end, I wrote to five professors, Burkhard Rost being one of them.

### **What happened next?**

To my absolute disbelief at that time, four of the five didn’t answer me. Today, as a professor, I understand how little time there is in everyday life for additional

questions. What is more, the lab's financial resources are one of the biggest restrictions. In the US, in order to have a graduate student, you need to bring in at least sixty to eighty thousand dollars in grants for the support of that student. It's quite possible that the people I wrote to simply didn't have the funds. The truth was that I had a fellowship which secured funding for me for four years. But I did not think to mention this in my e-mails because I assumed everybody knew.

**But Professor Rost did answer you and offered you a cooperation?**

In hindsight this was obviously the best thing that could have happened to me back then. When I first met him, I was very sure that I wanted to work with him. Not only because he is an absolute genius, but because he was so pleasantly unusual. I came into his office and he was sitting on an exercise ball – one of these huge exercise balls. I now have one myself. I think if I'd come to his office and he'd been wearing a tie and a pressed shirt, I probably wouldn't have done my PhD with him. I've always been a bit unconventional, and he fits in very well with that (*laughs*).

**Up to the present day nothing has changed in this perfect research duo. You also worked together at TUM. As an outstanding young scientist, you were accepted as a Hans Fischer Fellow at TUM-IAS in 2013.**

That's right. After my PhD, I stayed at Columbia as a postdoc and came to TUM for the first time in 2009. That was when Burkhard moved to TUM. I received the Hans Fischer Fellowship in 2013. The first year I tried to work in one of the beautiful TUM-IAS offices, but it just didn't work. So I went to Burkhard and stayed in his work space all the time. I am very grateful to the IAS that I was able to continue working intensely with Burkhard, also got a PhD student and had the opportunity to research microbes – which was a new field for me at the time. Most of my collaborations came about this way – something that my colleagues at my home university have noticed negatively (*laughs*). I am at Rutgers University and my collaborative projects are all in Europe. So lately I've been building American collaborations way more extensively.

**Do you think you will still be coming to Munich regularly once the funding phase is over?**

Of course. Burkhard's lab is my lab. And two of my Rutgers students originally come from here. Also Munich is my base in Europe. For example, when I

teach in Italy or have to go to Denmark for a dissertation defence, I never fly directly there, but always via Munich, so I can say hello to everyone and travel from here. You really have a unique research landscape here. That is beyond question. Privately I would prefer Portugal or Spain because of the warm climate (*laughs*), but scientifically Germany is simply unbeatable.

**That means you feel a sense of belonging at TUM, as well?**

There is a funny story about this. When I applied for NASA-funding with a team, the main organizer of the corresponding workshop wrote 'Technische Universität München' under my name as the first associated facility and 'Rutgers University' in second place. I had asked him to change it, of course – Rutgers is my home institution. But I also realised what drove that – when you don't know TUM, you think: „It's technical, it has to be good“. Meanwhile, I hear again and again that TUM is to Germany what the MIT is to the USA. The TUM students in my lab are the best example of this. They work excellently, precisely and very quickly. I really appreciate it when people are fast.

## I want to cure diabetes.

**Let's take a look at your future. What does it look like?**

I want to find the origins of life, solve the microbiome problem, and cure diabetes. That's my plan for the next 70 years.

**Sounds like an ambitious goal.**

**Maybe you will receive the Nobel Prize one day.**

Why not? But this award is not the most important thing for me. My view on that might be a bit unconventional. There are a lot of people who deserve the Nobel Prize. Nobel Laureates are mostly people whose work attracts the most attention, out of a number of people who would all deserve it. This in no way diminishes the performance of these award winners. He or she is still outstanding – by the way, there should be many more women – but there are other researchers who are just as good.



**And there are also other important prizes and awards...**

Absolutely. And there's no question about it, for me it is very important to get recognition. But to be honest, it doesn't make me any less of a researcher if I don't get this form of recognition. What does make me feel less of a researcher is if my proposals don't get funded and I can't afford to bring in talented students. It is very important to me that they get acknowledged and I support them extensively. Thus, an ideal future would be working at an institution in which I don't have to apply for funding. Because there are always situations when students come to me whose supervisors suddenly no longer have any money. Such cases bother me, and I often stand up for them. Frequently there are some possibilities that their advisors should have considered more intensely. For example, you can find someone else to support the students for a year, or they can apply for additional scholarships. But as sad as this is, I also have benefited from this situation in having recruited two outstanding students from outside my field.

**Your work and your team are very important to you and you spend a lot of time together. It seems you are almost like a family, or am I wrong?**

No, you're not. We like to think that. This sometimes leads to friction or conversations about our private lives and maybe may not be the most efficient way to work, but for me it is definitely not only about efficiency. The boundaries between work and private life are fluid, and that's a good thing. For me it is about enjoying life and science to the fullest and making sure that the people around me do this, too and are being recognised as scientists.



**PROF. DR. YANA BROMBERG**

**TUM-IAS Hans Fischer Fellow 2014–2017**

Yana Bromberg, Ph.D. lives in New York and New Jersey. She is an Associate Professor at the Department of Biochemistry and Microbiology and Adjunct Associate Professor at the Department of Genetics at Rutgers University in New Jersey. At the age of eleven, she came to the US from the Ukraine with her parents and lived in New York in a humble home. From 1997 to 2001 she studied Biology and Computer Sciences at Stony Brook State University of New York. Subsequently she completed her M.Phil. and did her doctorate in Biomedical Informatics at Columbia University with today's TUM Professor Burkard Rost, gaining her PhD in 2007. For the following three years, she remained at Columbia as a postdoctoral research scientist until she moved to Rutgers University in New Jersey as an Assistant Professor in Biochemistry, Microbiology and Genetics. There she was given her own lab. From 2014 to 2017 she was a Hans Fischer Fellow of the TUM Institute for Advanced Study (IAS). Her research focuses on molecular functions of proteins and genes. Her laboratory investigates human genetic variations for predisposition to disease, builds tools for microbiome analysis, and is also searching for protein-based origins of life. Yana Bromberg is a member of the Board of Directors of the International Society for Computational Biology and is actively involved in the Intelligent Systems for Molecular Biology (ISMB) conference, as well as its European equivalent, the European Conference on Computational Biology (ECCB). In her spare time, she goes hiking or sailing and loves to visit her family and friends all over Europe – usually from her base in Munich.



UNIVERSITY DONOR

**WERNER MANG**

**Appearance  
is not very  
important  
to me.**

The plastic surgeon on his own impulsivity, the courage to take unconventional decisions and his plans for retirement.



TUM Alumni and professor Dr. Werner Mang, specialist for ear, nose and throat, and plastic surgery is one of Germany's most famous aesthetic surgeons. Since his time as an assistant physician at TUM's University Hospital 'Rechts der Isar' he likes to surround himself with celebrities and the media loves him. Nonetheless, other people's opinions do not faze the physician. As a pioneer in his field he developed successful methods of aesthetic-reconstructive surgery, which meanwhile are widely used worldwide. As an entrepreneur he established a highly successful clinic at Lake Constance.

**Professor Mang, one of Europe's biggest specialist clinic for plastic-aesthetic surgery isn't located in Munich or Hamburg but in Lindau at Lake Constance. What's the source of the strong connection to your home?**

Family – this is the only possible answer to that. Do you mean your own family when you say that? Yes. I think if you don't have a happy parental home, you will struggle more than others. But my parental home at Lake Constance was formidable. My mother raised us with love. My father was strict but a great role model. He was Director of the Forestry Administration and Deputy District Administrator, politically very active, received the Federal Cross of Merit, hence was a renowned figure. Until I was 18 years old I practically didn't know what a problem was. Maybe my Greek exams, which frequently gave me insomnia. Otherwise I didn't know the word 'problem'. But I wasn't an easy child.

**How so?**

I have always had my own opinions. My father supported that. He let me make mistakes and then said: "Look, this could have been done differently." I am an alpha and a norm-breaker, but I can't accept injustice. In elementary school it was all the rage amongst the boys to tease the girls. Of course I joined in. But if one of my mates took it too far, I immediately sided with the girls and stood up for them. Just before finishing high school it even happened that I counterattacked a teacher who had slapped a class mate without any justification. This could have cost me my high school certificate.

**Would you describe yourself as an impulsive person?**

Definitively: impatient, impulsive, to some extent choleric. I have always been very headstrong and inconvenient, consequently pursued my goals even if it sometimes went wrong. What is important: I never hold a grudge. I apologise when I have made a mistake.

**After finishing high school you decided to study Medicine in Munich. What gave you the idea?**

The trigger was one of my class mate's accident, which I saw. He rode home from school on his bicycle. He came out of a forest track and turned onto the road and was hit by a car. He fell straight on his face. The nose was shattered, the cheeks torn open. I was wondering about his chances to ever look like before the accident again and watched with fascination how the ambulance arrived and tended to the boy. That was my key moment. When I told my father about my decision to become a surgeon I could feel that he was proud of me.

**What memories do you have of your time studying at TUM's University Hospital 'Rechts der Isar'?**

I always wanted to study at the Technical University of Munich. To me it is like Munich: cosmopolitan, down-to-earth, international, grounded, conscious of tradition, innovative, performance-oriented and still very humane. A stepping stone for all students. I have spent the best years of my life here – doctorate, residency, habilitation, professorship. Sometimes I walk through the university hospital at night and reminisce about this wonderful time. Meanwhile my son is also a TUM Alumni. But he studied Architecture. For both of us TUM is our spiritual home.

**Are you still in touch with fellow TUM students or professors?**

We used to be four musketeers, who found each other to do the medical state examination. I am still in touch with three of them, the other one unfortunately died early. And just last week I operated with Professor Edgar Biemer, who used to run the Department for Plastic and Reconstructive Surgery at the University Hospital 'Rechts der Isar'. He was over at mine in Lindau and we did a severe breast reconstruction. He told me that he will turn 80 next week. And I thought: "Great. So I will be able to operate for another ten years, too" (*laughs*).

**You spent your residency in Lindau and at LMU, but returned to TUM's University Hospital as a senior physician in 1982. In 1988 you were appointed professor.**

Yes, in between I worked at the polyclinic in Großhadern, but to be honest, there was always a longing to return to the University Hospital 'Rechts der Isar'. At a congress in Seattle I met Professor Werner Schwab. He was the director of the Ear, Nose & Throat Clinic and poached me for the Facial Surgery Department. I did feel obligated to my mentors in Großhadern but the opportunity was too tempting. At TUM's University Hospital I then headed the Facial Trauma Surgery Unit at the Ear, Nose and Throat Clinic.

## I am a practitioner through and through.

**However, two years later you turned your back on Munich to open a private clinic in Lindau at Lake Constance. Why?**

Because I didn't want to have a boss anymore. I wanted to be solely responsible in my work. Without any ifs and buts, without any superiors. That was my dream. But that also meant that I had to start from scratch in Lindau. Together with three others I opened a small clinic. A medical start-up, so to speak. I started out with four beds, then it was eight, at some point 10. Meanwhile I have about 60 employees and we do more than 2,500 treatments per year.

**A career in research would not have been your cup of tea?**

No, because I am a practitioner through and through. I love operating. The only thing I would have been very interested in, in terms of research, is transplant surgery. I mean the complete face transplant after accidents or tumours, which meanwhile is indeed technically possible. Of course you need a large clinic and immunology research and so forth to do that. But I chose a different path: plastic and aesthetic surgery, independent, my own boss, entrepreneur.

**What do you like about aesthetic surgery?**

I started out in abdominal surgery, but if you are taking out somebody's appendix you don't see any changes afterwards. Yet, if you are patching somebody up after an accident, you see the result very clearly. For me, this is the reward for my labour.

**Would you call yourself an aesthete?**

I am not the prototype of a vain aesthetic surgeon, if that is what you mean. My wife frequently has to point out that I should buy new clothes. Appearance is not very important to me.



During a photoshoot at TUM Prof. Dr. Werner Mang happened upon President Wolfgang A. Herrmann. He is "highly impressed" by President Herrmann's extensive work for his alma mater, says Professor Mang.

### **Nevertheless, in Germany you are mainly known as a plastic surgeon. What do you do in your clinic at Lake Constance?**

I am not a Botox man. About 30 percent of our surgeries are cosmetic, the others medical reconstructive. We have different senior physicians, who cover the entire spectrum: breast, abdomen, legs and face surgery. Well, and I am known for my nasal surgery.

## **TUM University Foundation in the Anniversary Year**

To respond quickly and flexibly to new requirements, attract the best talent and promote young scientists – the TUM University Foundation gives the university entrepreneurial scope that goes beyond government funding. Established in 2010 by both private and business patrons, its goal is to provide TUM with ongoing support and promote excellence. Since then, many new donors have come on board, most notably from the university's network of alumni. Today, it ranks as one of Germany's largest university foundations.

Thanks to the fantastic support of friends and supporters, 93 million euro in total could be raised during the anniversary campaign from 2015 until 2018. 25 million were donated from the Klaus Tschira Foundation to the Research Centre for Multiple Sclerosis. The Dieter Schwarz Foundation will permanently and fully fund 20 new TUM professorships, including staff and infrastructure, 13 thereof at the new TUM Campus in Heilbronn. Also the TUM Teaching and Research Station Berchtesgaden, which aims at getting young people excited about natural sciences, could be financed from these funds.

[www.tum-universitaetsstiftung.de](http://www.tum-universitaetsstiftung.de)

### **Why particularly noses?**

That was another key moment. In 1985 the actor Götz George came to our clinic. He didn't use a stuntman for the 'Tatort' shoot and suffered a terrible nasal fracture. After his surgery he looked better than before (*laughs*). The story was in the newspaper with a picture of me next to it. This made me famous and gradually more and more celebrities came to see me.

### **Where do you draw the line when it comes to cosmetic surgeries?**

I am against these inflated silicone lips, I refuse to do it; also if someone wants to have a waist like Victoria Beckham, that is removing the seventh rib, or chest implants for men, who want to look like Arnold Schwarzenegger at his peak. Due to these things aesthetic surgery has such a negative connotation. Aesthetic-plastic surgery is a very valuable type of medical science if you do it properly. Nasal humps, long noses, protruding ears, drooping eyelids, eye bags, breast reconstruction after cancer surgery: we are able to help patients.

### **Apparently it is also part of your job to be attacked and criticised by colleagues and the media every now and then. Doesn't that bother you?**

A lot of what I did was pioneering work and I bore the brunt. When I was a senior physician, for example, a specialisation in plastic surgery didn't exist yet. That's why I am an ear, nose and throat doctor with the addition 'plastic surgery'. It was me who woke aesthetic surgery from a deep slumber back then. When I did the first lifting at the University Hospital 'Rechts der Isar' it could have cost me my career as a full professor, that's how indecent it was considered. I needed courage to follow my path. And the further up you get, the thinner the air. That's normal. I apply the boxing principle: when I am down for the count I have to get back up as quickly as possible and keep going.

### **How do you generally deal with difficult situations?**

I talk to my wife Sybille. She knows me very well and tells me the truth, even though I don't want to hear it (*laughs*).



**As a university donor you have supported TUM with a lot of money. Why do you care about your alma mater's future?**

Because TUM has given me a lot. Practically the green light for my entire life. Whoever is successful should think about who they owe that to. I also owe my success to the fact that I did my doctorate and habilitation at TUM, received a good education and then later on a professorship. I am not a major investor, but I will continue to do my best in supporting my alma mater.

## **My wife Sybille tells me the truth, even though I sometimes don't want to hear it.**

**In September this year – hopefully I am allowed to reveal that – you are turning 70. What are your plans for retirement?**

Retirement? I am not the Tuscany-type that spends all their time playing golf and drinking red wine. My life is in the operating room. I just extended for another five years. By biggest fear is that I will become frail one day and won't be able to perform surgery anymore. Otherwise my motto is: whoever doesn't have dreams or plans anymore is already dead. And that is why I am setting up a clinic in China right now. In Moscow I have a partner clinic, which I am visiting twice a year. What should I say? It just goes on and on. That's my entrepreneur gene. I can't switch it off.



**PROF. DR. WERNER MANG**

**Doctorate Medical Studies 1974, Habilitation 1984**

Werner Mang was born in Ulm and grew up in Lindau as the son of a Director of the Forestry Administration. In 1968 he earned his university entrance qualification from Bodensee-Gymnasium in Lindau. Already in school he moulded faces and shapes. At the age of 18 he took his savings and went on a pilgrimage to Rio de Janeiro, to the father of plastic surgery, Prof. Dr. Ivo Pitanguy, to learn the trade. Werner Mang studied Medicine at TUM and LMU and graduated with the State Exam and a doctorate. He was Medical Specialist for Head and Neck Surgery at Klinikum Großhadern and returned to TUM's University Hospital 'Rechts der Isar' in 1982 as a Senior Physician. Here, he ran the Department of Plastic Surgery under Prof. Dr. med. Werner Schwab. In 1984 the habilitation followed, in 1988 the professorship. Professor Mang rejected several very attractive offers and instead opened a private clinic for aesthetic surgery in Lindau in 1990. It was continuously expanded and in 2003 Germany's biggest clinic for aesthetic surgery opened. Professor Mang is the founder of the Association for Aesthetic Surgery. His Professor-Mang-Foundation provides surgical treatment to socially disadvantaged families. Besides his profession, all his love goes to his family and to sports. Professor Mang is married and has two adult children. His son Thomas is a TUM Alumni as well and has studied Architecture at TUM.



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Walter Tengler  
Martin Tenta  
Wolfgang Teubner  
Roland Theiss  
Peer Thilo  
Klaus Thoma †  
Stephan Thurn  
Rudolf Tobiasch  
Dirk Többen  
Berthold Torge  
Rainer Torka  
Dietmar Tscharnuter  
Frank Tschirne  
Jürgen Tuffentsammer  
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Franz Uelses  
Iris Urban  
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Michel Veraart  
Josef Vilsmeier  
Elisabeth Vocks  
Pavel Vogel  
Sebastian Vogl  
Horst-Hartmut Vogt  
Andrea Voltmer  
Max von Vopelius  
Arnold Vossen  
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Hermann J.M. Wagner  
Paul Wagner  
Wolf Wagner  
Otto Walterspiel  
Reinhard Wambsganz  
Wei Wang  
Helmut Weber  
Horst Weber

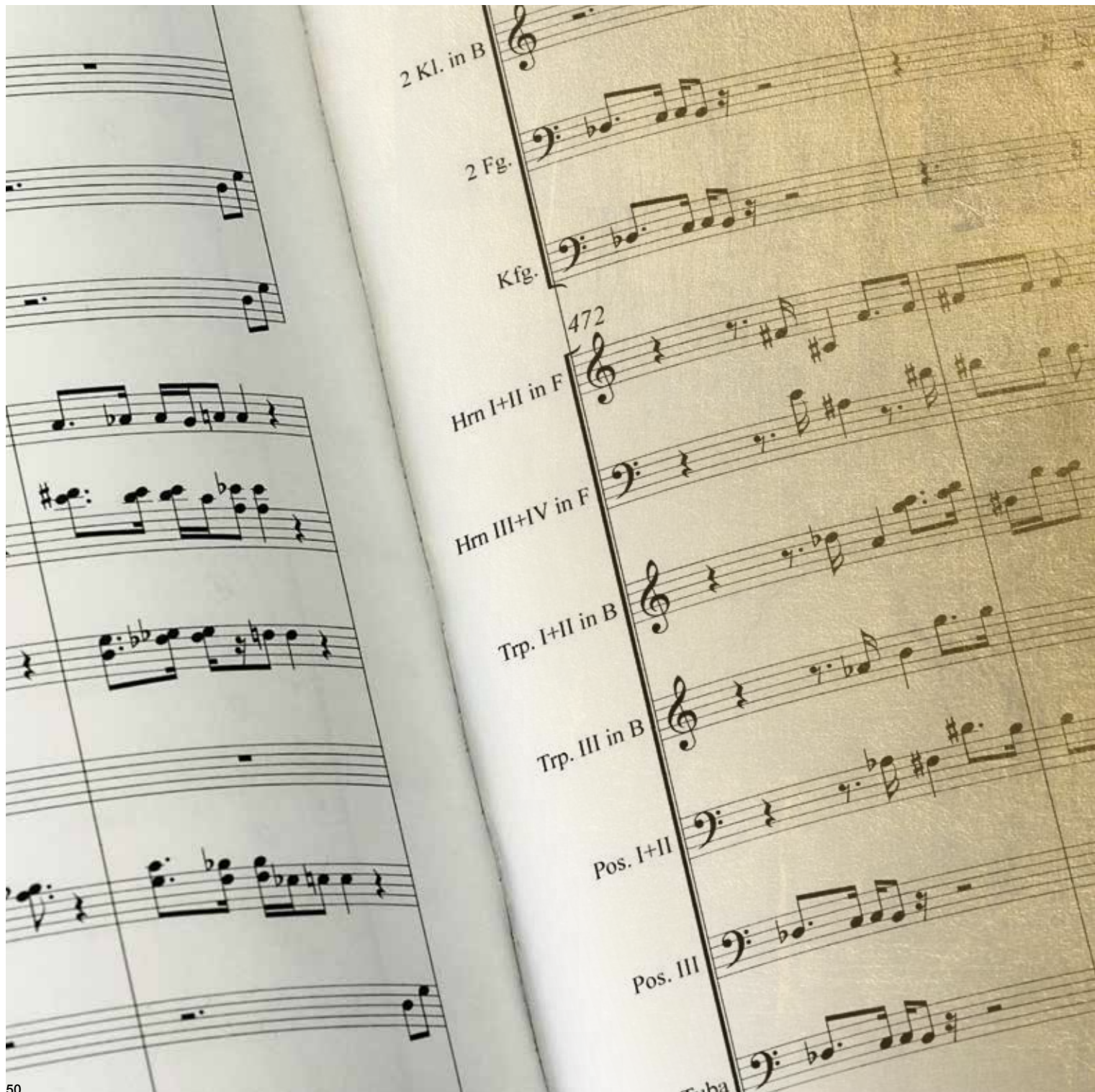
Julia Weber  
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Jörg Wehr  
Richard Weidmüller  
Siegfried Weigert  
Walther Weigl  
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Klaus Weiß  
Robert Wendeborn  
Bernd Wenzel  
Hans-Ulrich Werner  
Helmut Werner  
Wilhelm Westermayer  
Alexander Westermeier  
Christian Wetzel  
Franz Wetzel  
Gerhard Weywadel  
Rudolf Widermann  
Wolfgang Wiedemann  
Christian Wiedenroth  
Werner Wiesbeck  
Rudolf Wiest  
Carolin Winkel  
Gerhard Winkhofer  
Andreas Winner  
Jenny Winter  
Gerda Wittmann  
Jürgen Wöhler  
Thomas Wöfle  
Catharina  
van der Woerd  
Andreas Wörner  
Klaus-Dieter Wünsch  
Ursula Wurzer-  
Fassnacht  
X  
Yuhui Xiong  
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Winfried Yblagger  
Jiming Yin  
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Franz Zacherl  
Johann Zänkert  
Johann Zahn  
Alexander Zapf  
Frank Zarges  
Rainer Zeh  
Andrea Zehentmair  
Alfred Zeiler  
Gerhard Zeitler †  
Holger Zeitler  
Kai Zercher  
Xuan Zhou  
Hugo Ziegler  
Doris Ziegler-  
Pithamitsis  
Klaus Ziesemer  
Florian Ziller  
Peter Zimmer  
Volker Zinkernagel  
Christel Zirwas-  
Hoffmann  
Adel Zubaca  
Elha Zubaca  
Alexander Zuckermann  
Dirk Zumkeller  
Rüdiger Zur Steege  
  
and weitere 13  
ungenannte Förderer

As of February 8th, 2019



# KontakTUM Program

For Alumni of the Technical University of Munich  
Spring / Summer 2019





The background of the page is a textured, golden-brown surface, possibly aged paper or parchment. On the left side, there are faint, overlapping musical staves with notes and clefs, suggesting a historical or musical theme.

## Gala Music for the Anniversary

The 'Gala music for the 150th anniversary of the Technical University of Munich' was heard for the first time on the 12th of April 2018 during the Festive Act to celebrate TUM's founding date in the Munich Residence. It is written by contemporary composer Franz Hummel, also known for the Ludwig opera 'Yearning for Paradise'. The festive piece is rich in colour and power: at the end of the musical composition and to crown their glory, a Bavarian topic and a technical topic receive a festive hymn.



# SHAPING THE FUTURE TOGETHER



## **The air taxi pioneers**

Four TUM Alumni and one dream:

Daniel Wiegand, Matthias Meiner, Sebastian Born and Patrick Nathen (from left) are building one of the first electric vertical take-off and landing jets to be used for individual transport. Still in their founding year 2015, the company Lilium Aviation has won the support of the European Space Agency and sent the first prototype into the air. Read more at [www.150.alumni.tum.de/en/lilium-en](http://www.150.alumni.tum.de/en/lilium-en)

AIR POLLUTION, CONGESTED STREETS, GAPS IN THE PUBLIC TRANSPORTATION NETWORK – THE PRESSURE ON URBAN TRAFFIC IS GROWING. MOBILITY AND INTELLIGENT TRAFFIC AND TRANSPORTATION SYSTEMS ARE A STRONG PROFILE AREA AT TUM.

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In two lecture series you can find out in which direction urban transport is developing and which new forms of mobility await us. TUM wants to make science public and accessible. At the moment, this includes research in the field of digitalisation and mobility, but also on climate and environmental protection. The scientists of TUM are inviting you to take part in the dialogue!





LECTURE SERIES TRAFFIC (IN GERMAN LANGUAGE)

## Public Traffic in a Digital City

Munich is growing, and so is the traffic. People's mobility behaviour is changing, and then there is also digitalisation. Understanding this change, but also helping to shape it – this is one of the challenges urban planning is facing in the years to come. The lecture series, organised by the Chair of Urban Development, takes a look at the conditions and consequences of the digital transformation for the development of urban mobility. Return to TUM and discuss with us!

Information at: [www.re.ar.tum.de/vortragsreihe-verkehr](http://www.re.ar.tum.de/vortragsreihe-verkehr)

LECTURE SERIES TUM@FREISING (IN GERMAN LANGUAGE)

## Science Explained For All

A pig as a life saver? And how are our fish and waters actually doing? These questions are answered by researchers from the Science Centre Weißenstephan, who make science understandable for everyone in the framework of the TUM@Freising lecture series.

A subsequent discussion after each lecture is explicitly wanted, because science thrives on the exchange of opinions. Not only for Freisingers or the alumni of the Science Centre Weißenstephan, but for everyone!

### DATES

Tue. 28.05.2019, Thur. 18.07.2019,  
Tue. 24.09.2019, 7 pm–9 pm

### PLACE

Lindenkeller  
Veitsmüllerweg 2, Freising

### REGISTRATION / INFO

Open event without registration  
[go.tum.de/708016](http://go.tum.de/708016)

PRESENTATION AND GUIDED TOUR (IN GERMAN LANGUAGE)

## Visiting Iffeldorf

The history of the development of TUM's Limnological Station at the Easter Lakes is as extraordinary as it is unique: it was built in three construction phases in 1986, 1991 and 2001, directly in front of the village church and with the tireless commitment of students, researchers and its founder Prof. Dr. Arnulf Melzer, today a TUM Emeritus of Excellence. The TUM Alumni tells vividly how the old buildings in the centre of Iffeldorf became a research station. After a guided tour through the house, he and his colleagues would like to invite you to a homemade pizza.

### DATE

Thur. 16.05.2019  
5 pm–8 pm

### PLACE

Limnologische Station Iffeldorf  
Hofmarkt 1–3, Iffeldorf

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

LECTURE SERIES UP-TO-DATE ON TRAFFIC (IN GERMAN LANGUAGE)

## New Forms of Mobility

For some years now, the Chair of Traffic Engineering and Control and the Verkehrszentrum of Deutsches Museum have been organising the lecture series 'Verkehr aktuell'. Each semester, experts give lectures on various topics. In the current summer semester, the lectures are held on the general topic 'Active Mobility – new forms of mobility conquer the city'. Alumni of TUM are cordially invited to find out more about the mobility of the future.

### DATES

Thur. 23.05.2019, Thur. 06.06.2019,  
Thur. 04.07.2019, Thur. 18.07.2019  
6.30 pm–8 pm

### PLACE

Verkehrszentrum des Deutschen Museums  
Am Bavariapark 5, Munich

### REGISTRATION

Open event without registration



#### DATES

Tue. 14.05.2019, Tue. 18.06.2019,  
Tue. 16.07.2019, Tue. 23.07.2019  
6.30 pm–8 pm

#### PLACE

TUM Campus Munich, Vorhoelzer Forum  
Arcisstraße 21, Munich

#### REGISTRATION

Open event without registration

#### ANNUAL CELEBRATION

## Physics Day

The Physics Department of TUM would like to cordially invite graduates, employees and friends of TUM to its annual celebration. There will be thought-provoking lectures, the doctoral graduates will be honoured and the Golden Chalk of the Physics Student Council will be awarded, too. The subsequent summer festival in the foyer of the Physics Department will be a great occasion to celebrate.

#### DATE

Wed. 26.06.2019  
from 2 pm

#### PLACE

TUM Campus Garching  
Rudolf-Mößbauer-Hörsaal (Physics lecture  
hall 1), James-Franck-Str. 1, Garching

#### INFORMATION

[go.tum.de/000616](http://go.tum.de/000616)

#### SCIENCE MATINEE (IN GERMAN LANGUAGE)

## Molecules of Taste

A large part of our quality of life is based on the ability to recognise smells and tastes in food. What are they made of? What happens biochemically when we perceive a smell? Prof. Dr. Thomas Hofmann explains the basics of perceiving smells and tastes and shows how humans reduce nature's complex molecular world to the essentials. Since 2007, TUM Alumni Thomas Hofmann has headed the Chair of Food Chemistry and Molecular Sensory Science. Meet the future president of TUM at the Science Matinee at the TUM-IAS!  
Information at [www.ias.tum.de/events/nachbarn](http://www.ias.tum.de/events/nachbarn)

#### DATE

Sun. 19.05.2019  
11 am–12.30 pm

#### PLACE

TUM Campus Garching, Auditorium  
TUM Institute for Advanced Study (TUM-IAS)  
Lichtenbergstraße 2a, Garching

#### REGISTRATION

Open event without registration



TUM Alumni Prof. Dr. Thomas Hofmann is the designated President of TUM. At the Science Matinee he will provide insights into his research.



# NOBEL PRIZE WINNERS AT TUM

On the 10<sup>th</sup> of December 2017, TUM Alumni Joachim Frank received the Nobel Prize for Chemistry at Konserthuset, the concert hall in Stockholm, in the presence of the royal family. The King himself presented the medal and a certificate. Continue reading at [www.150.alumni.tum.de/en/joachim-frank](http://www.150.alumni.tum.de/en/joachim-frank)





THE NOBEL PRIZES AWARDED SINCE 1901 ARE TODAY CONSIDERED TO BE THE HIGHEST DECORATION IN CHEMISTRY, MEDICINE, PHYSICS, LITERATURE, ECONOMICS AND FOR PEACE EFFORTS. SO FAR, 17 SCIENTISTS AND ALUMNI OF TUM HAVE RECEIVED A NOBEL PRIZE.

In 2017 Prof. Dr. Joachim Frank received the Nobel Prize in Chemistry and is thus the 17<sup>th</sup> Nobel Prize winner from the ranks of TUM. A total of nine Nobel Prizes were awarded to TUM chemists, including Bernard L. Feringa (2016), Robert Huber (1988) and Ernst Otto Fischer (1973).



LECTURE (IN GERMAN LANGUAGE)

## At TUM For a Visit

As a doctoral student, Joachim Frank still argued with his mentor at TUM about how molecules could be detected. In 2017, the TUM Alumni was awarded the Nobel Prize in Chemistry for the development of cryo-electron microscopy. In June 2019 he will come to TUM, where he will be presented with the honorary title 'TUM Distinguished Affiliated Professor'. In the framework of the award ceremony on the 6th of June, the TUM Alumni will give a presentation at the Institute for Advanced Study (TUM-IAS) which is open to alumni and doctoral students. You, too are cordially invited to meet the Nobel Laureate in person.



Joachim Frank did his doctorate in 1970 at TUM with Prof. Walter Hoppe as his supervisor.

### DATE

Thur. 06.06.2019  
2 pm – 4 pm

### PLACE

TUM Campus Garching  
TUM Institute for Advanced Study (TUM-IAS)  
Lichtenbergstraße 2a, Garching

### REGISTRATION

Open event without registration.  
We recommend to come early to get a seat.




# STRONG ROLE MODELS, INSPIRING NETWORKS

## Six Visions

At the Women of TUM Talks during TUM's Anniversary Year, six female scientists, students and alumni gave insights into their work and impulses for the world of tomorrow. It will be a lot safer, more sustainable, more networked, and more digital than before – and more feminine. Over 200 women from all over Germany accepted the invitation of their alma mater and attended the Women of TUM Talks, which took place at the University of Television and Film (HFF).

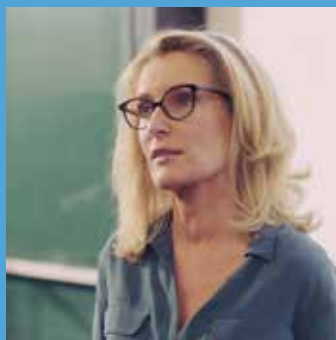




IN THE 150-YEAR-LONG HISTORY OF TUM, WOMEN DID NOT PLAY MUCH OF A ROLE FOR A LONG TIME. BUT IN THE MEANTIME THAT HAS CHANGED: TODAY A GOOD THIRD OF THE STUDENTS ARE FEMALE, AND THE PROPORTION OF WOMEN IN PROFESSORSHIPS IS AT 18 PERCENT.

TUM has set itself the goal of becoming Germany's most attractive technical university for women. In order to meet this target, it also needs role models that inspire. The Women of TUM make a significant contribution here. They form a global network for the women of TUM, who can contact each other via the TUM Community or at lectures and afterwork events.

For the web series, TUM Alumna Dr. Maria Furtwängler (Doctorate Medicine 1996) came back to her alma mater; she is playing a professor for Control Engineering.



#### HOLIDAY PROGRAM

## Girls Do Tech

Science and technology are exciting – even already for school children! TUM's holiday program at universities in Bavaria specifically targets girls between 10 and 16: the idea is that they conquer the world of computers and diamonds, test tubes and cells or the Internet together. They learn how electricity gets into the power socket and how to build a bridge without nails, how robots execute commands and how planes go up into the air. The pupils are supported by university teachers and students and: experimentation, tinkering and also playing is allowed.

#### DATES

Mon. 29.07.2019 – Fri. 06.09.2019  
all day

#### PLACE

Different universities and  
research centres in Bavaria

#### REGISTRATION / INFO

[www.schueler.tum.de/ferienprogramm](http://www.schueler.tum.de/ferienprogramm)

#### AUTUMN UNIVERSITY

## Pupils Do Research

Your daughter or granddaughter is also interested in studying at TUM? The Autumn University is a good opportunity to get to know TUM, to get a whiff of science air and to get an idea of studying natural sciences. During the autumn holidays, the diverse range of projects offered by the various faculties invites all schoolgirls from the 10th grade and up to TUM: in small groups they will work on current issues and carry out experiments, learn measuring methods and manufacturing techniques. This is how study orientation is done successfully.

#### DATES

Tue. 29.10.2019 – Thur. 31.10.2019  
all day

#### PLACE

Different TUM Campuses

#### REGISTRATION / INFO

[www.schueler.tum.de/herbstuniversitaet](http://www.schueler.tum.de/herbstuniversitaet)





TUM'S FIRST WEB SERIES

## TECHNICALLY SINGLE

Making young women want to study MINT and doing away with some clichés – this is what the web series of TUM and the University of Television and Film (HFF) aims at. **TECHNICALLY SINGLE** tells the story of 19-year-old Juli, who is studying Electrical Engineering at TUM. In five ten-minute episodes, she is radiating university life and surprises with original views on the TUM campus. The web series not only visually has the finger on the pulse of time, it is also clever and funny sultanously and plays skilfully with the clichés around civil engineers and business administration students. TUM Alumni Tobias Grabmeier (Bachelor Electrical Engineering and Information Technology 2012) acted as creative producer, the script was written by Sebastian Stojetz as his final thesis at the HFF, he also directed. **TECHNICALLY SINGLE** can be seen on [maxdome.de](http://maxdome.de) and [sixx.de](http://sixx.de), as well as on Lufthansa's on-board entertainment.

DINE AROUND THE WORLD – WOMEN OF TUM SPECIAL

## Afterwork

TUM Alumna Jana Knode is a Consultant for Digital Innovation and Design Management and guides companies on their way into the agile and digital future. With the question 'How to Enable Change in an Unsupportive Environment?' she is opening the networking evening and encourages people to discuss. Here she will outline the differences between traditional and agile project management, draw attention to the difficulties in the change process and give insights into learnings from her 'twisted' curriculum vitae, which, to her, was the best preparation for her job.

### DATE

Fri. 12.07.2019

7 pm–9 pm

### PLACE

TUM Campus Munich

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

WORKSHOP (IN GERMAN LANGUAGE)

## Making Achievements Visible

You would like your boss to acknowledge your work more? You are wondering how you can make your successes and strengths more visible in the company? Then this workshop is the right one for you. With the help of practical tips you will learn the art of successful self-marketing. Become a PR master on your own account and show that your achievements are yours. TUM Alumna Corinna Schulmeister is a passionate business coach and trainer. You can read her story at: [www.150.alumni.tum.de/en/corinna-schulmeister-en](http://www.150.alumni.tum.de/en/corinna-schulmeister-en)

### DATE

Thur. 16.05.2019

6 pm–8 pm

### PLACE

TUM Campus Munich

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

WOMEN OF TUM TALK (IN GERMAN LANGUAGE)

## Women Who Inspire

Since 2012 the Women of TUM Talks exist. They are always about inspiration: to introduce women who can be role models for others, who inspire and encourage them to pursue their own ideals. The event is therefore primarily aimed at women and opens the floor for exchange and networking amongst the Women of TUM – a global network for female scientists, graduates and students in which international exchange and mutual support between women in business and science are promoted.

### DATE

Autumn 2019

### PLACE

TUM Campus Munich

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

# MAKING A DIFFERENCE TOGETHER

They sit in long dragon boats.  
The drummer sets the rhythm and  
16 paddlers get started. According  
to tradition, the rowing teams show  
up in costumes and with props –  
dressed up as Vikings, angels or  
sailors, for example – and don't take  
the competition too seriously.  
Sounds weird, a must-see.





A UNIVERSITY IS CHARACTERISED NOT ONLY BY SUCCESSFUL RESEARCH AND INNOVATION, BUT ALSO BY THE RESPONSIBILITY AND COMMITMENT OF ITS MEMBERS. MANY TUM ALUMNI HAVE ALREADY BECOME INVOLVED DURING THEIR STUDIES AND HAVE BROUGHT NUMEROUS INITIATIVES UNDER WAY.

The career fair IKOM, the participation in the Hyperloop or the festivals TUNIX and GARNIX have for example been initiated by the students of TUM. At sporting events such as the TUM Campus Run or the Dragon Boat Race, students and alumni compete against professors and staff.

## DRAGON BOAT RACE

### Extravaganza on the Olympic Lake

In 2019 the Olympic Lake will be the venue for the Dragon Boat Race of LMU and TUM for the tenth time. Institutes, departments and clinics compete against each other with 16 paddlers and one drummer per boat. The fastest boats win, but also the best professors, the best students and the most original teams are going to be nominated. There will be a children's boat again for young paddlers between the ages of six and 14, and university alumni can also register their own boat. Or you can simply come just to watch and share the excitement.

#### DATE

Fri. 12.07.2019  
4 pm–8 pm

#### PLACE

Olympiasee, Munich



#### REGISTRATION / INFO

[www.tu-drachenboot.de](http://www.tu-drachenboot.de)

**IKOM CAREER FAIRS**

## For Alumni and Students

With over 300 companies and 15,000 visitors, IKOM is the largest student career fair in Germany. Over 100 TUM students from various faculties make up the volunteer team of IKOM – Munich's largest student initiative. In addition to IKOM in June, there are now also career fairs with specific focuses, such as IKOM Life Science or IKOM Bau. In 2018 one of the IKOM Awards for companies with outstanding responsibility went to TUM Alumni Andreas Duschl: [www.150.alumni.tum.de/en/andreas-duschl-en](http://www.150.alumni.tum.de/en/andreas-duschl-en).

**DATES**

Mon. 24.06.2019–Thur. 27.06.2019  
9.30 am–4.30 pm

**PLACE**

TUM Campus Garching  
Faculty of Mechanical Engineering  
Boltzmannstraße 15, Garching

**REGISTRATION**

Open event without registration

**ANNIVERSARY OF THE CAREER FAIRS**

## 30 Years IKOM

During TUM's Anniversary Year, also Germany's largest career fair organised solely by students celebrated its birthday: it has been 30 years since a courageous group of committed students created the first IKOM. TUM Alumni Thomas Peither (Diploma Mechanical Engineering 1990) was there: "It was 1988. We were a cheerful group of around twelve students from the Mechanical Engineering Student Council who were heading towards the end of their studies and were looking for perspectives." Many still know and meet each other today – his wife Barbara Peither (Diploma Mechanical Engineering 1990) was also involved in the organisation.

Thomas Peither was able to open the first IKOM in 1989 with 26 exhibitors: "I did feel a little queasy when I was supposed to say the opening words". But the event in the foyer and on the 1st floor of the northern site at Theresienstraße, where IKOM was held at the time, was an instant success. Today, 30 years later, around 100 volunteering TUM students organise four career fairs each year with several hundred exhibitors and other free events that promote personal contact between students, alumni and companies.

Read more at [www.150.alumni.tum.de/en/ikom-en](http://www.150.alumni.tum.de/en/ikom-en)



The two Alumni Barbara and Thomas Peither were party to the founding of IKOM in the years of 1988/1989.



IKOM 2018: Today around 100 students of TUM organise four career fairs annually.



## INDIVIDUAL DATES

### **IKOM Life Science**

#### **IKOM Life Science**

Tue. 14.05.2019

9.30 am – 4 pm

TUM Campus Weihenstephan

[www.ikom.tum.de](http://www.ikom.tum.de)

### **IKOM Consulting Day**

#### **IKOM Consulting Day**

Thur. 23.05.2019

all day

in Munich

### **IKOM Award**

#### **IKOM Award**

**Employer of the Future 2019**

Wed. 05.06.2019, 7 pm

TUM Campus Munich

Vorhoelzer Forum

Arcisstraße 21, Munich

### **IKOM Start-Up**

#### **IKOM Start-Up**

Tue. 25.06.2019, 9.30 am – 4 pm

TUM Campus Garching

Faculty of Mathematics

and Computer Science

Boltzmannstraße 3, Garching

## STUDENT OPEN AIR GARNIX

# Garching in Festival Mood

In June campus Garching will once again be saying: summer, sun, GARNIX! The students transform the campus into a festival area and provide great musical variety: there's Rock on Monday, Bavarian dialect and a Schafkopf competition on Tuesday, Rock and Metal on Wednesday, Rock/Pop on Thursday and to finish, Reggae on Friday. Film lovers can look forward to the open air cinema, organised by tu film. Alumni who have never been to the Garching campus before should take the opportunity and combine their visit with the student festival.

## DATES

Mon. 03.06.2019 – Fri. 07.06.2019, from 2 pm

## PLACE

TUM Campus Garching  
Front Square Maths/Computer Science  
Building

## REGISTRATION / INFO

Open event without registration  
[www.garnix-festival.de](http://www.garnix-festival.de)

## 7. TUM CAMPUS RUN 2019

# On Your Mark, Get Set, Go!

Running boosts happiness. And running together with other people is even more fun.

The starting signal for the 7. TUM Campus Run will be given on the 5th of June 2019: there will be two routes to choose from, which can be completed as a group or as an individual runner. All students, employees and alumni of TUM may participate. Afterwards there will be a celebration at GARNIX-Festival – with an award ceremony for the best runners.

Like every year, the run is organised by committed students of TUM: Junge Akademie.

## DATE

Wed. 05.06.2019

from 5 pm

## PLACE

TUM Campus Garching

## REGISTRATION / INFO

[go.tum.de/848101](http://go.tum.de/848101)

## STUDENT OPEN AIR TUNIX

# Music at Königsplatz

For the 39th time the student representation of TUM is hosting the TUNIX Open-Air-Festival at Königsplatz. The festival stands out with its charming atmosphere, tasty beer-garden snacks and exciting insights into Munich's music scene, because the festival wants to offer especially newcomers and artists from the region the chance to perform live. Students and alumni, Munich natives and foreigners alike flock together at the meadow between Glyptothek and the cafeteria and take a break from the hustle and bustle of the big city. For alumni this is an opportunity to come back to campus again!

## DATES

Mon. 17.06.2019 – Fri. 21.06.2019

from 2 pm

## PLACE

TUM Campus Munich  
Meadow next to Glyptothek at Königsplatz

## REGISTRATION / INFO

Open event without registration  
[www.tunix.de](http://www.tunix.de)

# IDEAS FOR THE WORLD OF TOMORROW

## A Worldwide Problem Solved

Inveox founder Maria Sievert, here in conversation with TUM Alumni Benjamin Thoma, Automation Engineer, while working on a prototype at UnternehmerTUM's Maker-Space. Together with her husband Dominik Sievert, whom she met at TUM, the entrepreneur has developed an automated process for the entry and preparation of tissue samples in laboratories – and thus solved an age-old, and global problem in pathology.

Read more at [www.150.alumni.tum.de/en/maria-sievert-en](http://www.150.alumni.tum.de/en/maria-sievert-en)



TUM SEES ITSELF AS A SERVANT TO THE INNOVATION SOCIETY: HOWEVER, NEW IDEAS SHOULD NOT REMAIN IN THE BUBBLE OF THE SCIENCE WORLD, BUT BE BROUGHT FORWARD INTO BUSINESS AND INDUSTRY.

Therefore, TUM inspires the 'entrepreneurial spirit' in all areas of the university and promotes the starting of businesses by its members on many levels. It supports the creation of companies through start-up consulting and entrepreneurship education, successful market positioning and the promotion of networks. Its goal: to be one of the most successful entrepreneurial universities in Europe.



The TUM Presidential Entrepreneurship Award 2018 was given to the company NavVis, which develops applications for the accurate mapping of interiors down to the centimetre. Founded in 2013, NavVis now employs around 140 people in Munich and New York. Vice President Prof. Dr. Thomas Hofmann awarded the prize, which is donated annually by the Bund der Freunde.



#### START-UP MENTORING

## Learning From Others

**You studied at TUM and then successfully started a company?**

**Are you curious about current innovations in science?**

**Would you like to use your experience to support researchers creating a spin-off?**

The Start-up Mentoring of TUM and UnternehmerTUM specifically supports start-ups at TUM in the market entry phase. Young founders benefit from the know-how of entrepreneurial figures; the mentors get to know exciting start-up teams. "It is a personal acknowledgement when your advice is requested", says TUM Alumni Dr. Lars Hoffmann, founder and managing director of fos4x. As a mentor, he supported the TUM Alumni Katharina Kreitz and Christian Haigermoser, as well as Florian Wehner in setting up their start-up Vectoflow. This is how the exchange between science and business works, this is how the TUM Network thrives!



#### CONTACT

Anna-Sophie Rauschenbach  
Consultant Entrepreneurship Network  
rauschenbach@zv.tum.de

#### INFORMATION

[go.tum.de/135848](https://go.tum.de/135848)



**TUM Alumni** Dr. Lars Hoffmann (Diploma Electrical and Computer Engineering 2003, Doctorate 2008), founder and manager of fos4X, is the mentor of the founding team of Vectoflow, Katharina Kreitz (Diploma Mechanical Engineering 2009, Diploma Mechanical Engineering & Management 2013), Christian Haigermoser and Florian Wehner.



TUM ENTREPRENEURSHIP DAY 2019

## TUM's Start-ups

The TUM Entrepreneurship Day exists since 2013 and it offers young businesses of TUM a forum. In addition to the opportunity to exchange ideas with start-up consultants and other start-ups, also workshops and pitch competitions are being offered. As a highlight the TUM Presidential Entrepreneurship Award will be presented to an outstanding TUM spin-off, whose business idea is substantially based on TUM research. In 2018 almost 60 start-ups took part in the fair.

### DATE

Mon. 24.06.2019  
3.30 pm – 9 pm

### PLACE

TUM Campus Munich, Audimax  
Arcisstraße 21, Munich

### REGISTRATION / INFO

Open event without registration  
[www.tum.de/wirtschaft/entrepreneurship/day](http://www.tum.de/wirtschaft/entrepreneurship/day)

IKOM START-UP

## Platform for Start-ups

The start-up culture at TUM is diverse. Every year around 70 companies are founded at the university. So it comes to no surprise that IKOM has been reserving a day for start-ups since 2013. IKOM Start-up takes place in Garching parallel to the career fair, and, in cooperation with UnternehmerTUM, offers 40 young companies the opportunity to introduce themselves and recruit competent TUM students and alumni. For more information on IKOM, see page 64.

Information at [www.ikom.tum.de/de/ikomstartup/fuerstudierende](http://www.ikom.tum.de/de/ikomstartup/fuerstudierende)

### DATE

Tue. 25.06.2019  
9.30 am – 4 pm

### PLACE

TUM Campus Garching  
Faculty of Mathematics and Computer Science  
Boltzmannstraße 3, Garching

### REGISTRATION

Open event without registration

PANEL DISCUSSION (IN GERMAN LANGUAGE)

## Hidden Champions

This is the name for small and medium-sized businesses, who are relatively unknown, yet are market leaders of their area or industry. There are many 'hidden champions' from the ranks of our TUM Alumni. At this panel discussion some of them will talk about their personal careers. Get to know interesting employers and family businesses you may have never heard of. Learn about unique products and entrepreneurs who have left the beaten track.

### DATE

Summer 2019

### PLACE

TUM Campus Garching

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)



# LEARNING AND GROWING TOGETHER





LEARNING AND GROWING TOGETHER: ACCORDING TO THIS MOTTO, THE MUTUAL EXCHANGE OF GENERATIONS ON THE TOPIC OF LIFE AND CAREER PLANNING TAKES CENTRE STAGE AT TUM.

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This takes place, for example, at the regular Career Lounges: these are exclusive panel discussions with top-class guests. Here you can meet interesting alumni from the various industries. At the TUM Career Events and at TUM Mentoring, you can share your own experience or benefit from the experiences of others. No matter in which phase of your life you are, you are cordially invited.



### **An Important Advisor**

With great enthusiasm TUM Alumna Prof. Dr. Marion A. Weissenberger-Eibl supports young TUM students as a mentor. Her advice helped mentee Daniel Schellenberger a lot. The futurologist is one of the TOP 100 of the most influential women in German economy and advises the Federal Government. Read more at [www.150.alumni.tum.de/en/weissenberger-eibl-en](http://www.150.alumni.tum.de/en/weissenberger-eibl-en)

CAREER LOUNGES AS PART OF THE CAREER DAYS  
(IN GERMAN LANGUAGE)

## Getting to Know Career Paths

Insider knowledge is always worth its weight in gold. This is what the TUM Network thrives on. At the so-called Career Lounges during the TUM Career Days, experienced TUM Alumni share their knowledge and insights. They open the panel on a certain topic, talk about their professional and personal life and invite you to exchange experiences. Why not take the opportunity to get to know different career paths and make interesting contacts.



TUM MENTORING NETWORK MEETING (IN GERMAN LANGUAGE)

## Ready For The Working World 4.0

Digitalisation is fundamentally changing companies and is placing new demands on employees. New technologies influence individual work design and collaboration. What skills do we need today and in the future to be successful in the digital world? In her lecture TUM Alumna and mentor Dr. Imme Witzel, trainer, management consultant and Head of the 'Working World 4.0' Department at Zentrum Digitalisierung Bayern (Bavarian Centre for Digitalisation), will give an overview of the topic. Afterwards there will be room for discussion and exchange within the TUM Mentoring Network.

### DATE

Wed. 15.05.2019  
7 pm–9 pm

### PLACE

TUM Campus Munich

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

TUM MENTORING NETWORK MEETING (IN GERMAN LANGUAGE)

## Take Care of Yourself!

Everyday work-life is demanding. Stress – positive and negative – is a normal part of our lives. The art of keeping all balls in the air and at the same time taking care of yourself is needed. In his lecture 'Self Care' TUM Alumni and mentor Wolfgang Parnitzke (Diploma Mechanical Engineering 1994) gives ideas for personal resilience and shows ways to take care of yourself even in times of high stress. Afterwards there is time for discussions and networking.

### DATE

Tue. 04.06.2019  
7 pm–9 pm

### PLACE

TUM Campus Munich

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

PRESENTATION WITH PERSONAL ACCOUNT (IN GERMAN LANGUAGE)

## Global Minds

Would you like to go abroad (again): as part of your studies or with work? There are always opportunities to work abroad short or long-term. The event series 'Global Minds' will discuss important things to pay attention to and questions that might come up. Each meeting will present a specific country – this summer term it will be USA/UK, Japan, India, Sweden – with its general framework, application process and intercultural challenges.

### DATE

Fri. 07.06.2019, Fri. 28.06.2019,  
Fri. 05.07.2019, Tue. 09.07.2019  
different times

### PLACE

TUM Campus Munich  
various locations

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)



## INDIVIDUAL DATES

### Job Entry via Temporary-Employment Agency

Thur. 06.06.2019  
6 pm – 7.30 pm  
TUM Campus Garching

### Meet Young Professionals in Life Sciences

Wed. 03.07.2019  
6 pm – 7.30 pm  
TUM Campus Weihenstephan

### Job Prospects Abroad

Thur. 11.07.2019  
6 pm – 7.30 pm  
TUM Campus Munich

**REGISTRATION** [www.together.tum.de/events](http://www.together.tum.de/events)

## ADVICE FROM COLLEAGUES

# Adventure Management

People in leadership positions have a lot of questions, too! A group of managers has formed amongst the TUM Alumni, which meets up regularly to exchange ideas and information. Whether you want to talk about managing staff or new challenges you are facing at your everyday work-life: the members share their issues with others and benefit from talking to like-minded people, their experience and ideas. Inexperienced people who have only recently taken on a management position are welcome to join, as well. Why not come along!

## DATES

Thur. 23.05.2019, Thur. 04.07.2019,  
Thur. 19.09.2019  
6.15 pm – 8 pm

## PLACE

TUM Campus Munich

## REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

## ADVICE FROM COLLEAGUES

# Adventure Starting a Career

The first 100 days on a new job, the challenges of every-day work, thinking about plans for your future career – starting out in professional life, a lot is new and unfamiliar. We would like to invite young Alumni in their first professional year to come and talk to other young professionals. The group provides a safe space to talk about problems with like-minded people, to pass on your experiences and to develop possible solutions. You can learn from the experiences of other young Alumni from different subject areas and companies.

## DATES

Wed. 15.05.2019, Wed. 12.06.2019,  
Wed. 17.07.2019  
6.15 pm – 8 pm

## PLACE

TUM Campus Munich

## REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

## INSTANT MENTORING: ONE QUESTION – ONE CONVERSATION

# TUM Mentoring JobTalk

You would like to find out more about the daily routine of a consultant or about the training to become a patent attorney? Formulate your question and we will put you in touch with an experienced matching Alumni as soon as possible. JobTalk is instant mentoring: students (and also alumni) are asking specific questions, alumni answer and provide their assessment and experience. A personal contact via telephone, Skype or a meeting is possible in a timely and uncomplicated manner. This is how easy inter-generational exchange can be!

## REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

## INFORMATION

[go.tum.de/368003](http://go.tum.de/368003)

# DOCTORATE

## AT THE END YOU GET THE MORTARBOARD!

It is a beautiful and cherished academic tradition. To top off his or her achievement, the newly-awarded doctor receives a mortarboard individually designed by the staff of the academic chair. This special tradition has been cultivated at TUM's Chair of Technical Electrophysics since 1962. At the end of the rigorosum, i.e. the final doctoral examination, a small procession sets out through the chair's corridors. This is where the mortarboards of all candidates, who have been doing their doctorate here since 1962, hang. "In the past, the mortarboards worked mechanically, but today they are usually equipped with electronic gadgets", says Dr. Gerhard Wachutka, chair holder and TUM professor. This photo shows the mortarboard of TUM Alumni Prof. Dr. Jürgen Mentel, who did his doctorate in 1969 on the subject 'Investigating the spiral instability of a wall-stabilized hydrogen arc'.



Read more at [www.150.alumni.tum.de/en/doktorhuete-en](http://www.150.alumni.tum.de/en/doktorhuete-en)





A DOCTORATE FROM TUM IS A LABEL OF QUALITY. ACCORDING TO A STUDY BY THE EUROPEAN SCIENCE FOUNDATION TWO YEARS AGO, TUM TRAINS SIGNIFICANTLY MORE HIGHLY-QUALIFIED PROFESSIONALS FOR THE RESEARCH INDUSTRY THAN OTHER UNIVERSITIES.

Half of TUM's doctorates work in the industry, a good third in universities and other research institutions. The respondents see their doctoral thesis at TUM as an important building block of their careers. Three quarters of all TUM Alumni feel well or very well prepared for their first job.

ADVICE AND SUPPORT FOR YOUNG SCIENTISTS

## Mentoring for Scientists

Mentoring for Scientists connects Research Alumni and guest scientists with young doctoral students and postdocs of TUM. The focus here is on the transfer of experience and personal exchange between researchers from different career levels.

### DATES

Application is possible at any point in time.

### REGISTRATION / INFO

[www.together.tum.de/mentoring-for-scientists](http://www.together.tum.de/mentoring-for-scientists)

WEBINAR

## Doctorate in Industry

Working in the company on one hand, dissertation on the other: those who do a doctorate while working or are working on an industrial project at university often have to work extra hours and endure the scepticism of colleagues. But there are also numerous advantages. In this interactive webinar a TUM Alumni shares his own experiences and answers your questions.

### DATES

[www.together.tum.de/events](http://www.together.tum.de/events)

### PLACE

Online

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

WEBINAR

## Convincing CVs

Rarely do the career paths of PhD students and postdocs fit into standard CV templates. Research, projects, publications and much more need to be included in a concise manner on a few pages. In this webinar you will learn different ways to present your additional skills and experiences in a convincing way. The webinar is also available in German.

### DATES

Mon. 27.05.2019, Thu. 13.06.2019  
10 am – 11 am

### PLACE

Online

### REGISTRATION

[www.together.tum.de/events](http://www.together.tum.de/events)

# TERMINE UND ANGEBOTE

## Ausstellungen im Sommersemester 2019

**bis Di. 31.12.2019** **ganztägig**  
INSIDE\OUT Forschungspavillon  
TUM Campus München, Innenhof  
Lehrstuhl für Tragwerksplanung, TUM  
[www.lt.ar.tum.de/forschungspavillon](http://www.lt.ar.tum.de/forschungspavillon)

**bis So. 14.07.2019** **ganztägig**  
Luminous Link – Tageslichtskulptur  
Freifläche des Staatlichen Museums Ägyptischer  
Kunst, Gabelsberger Straße 35, München  
Lehrstuhl für Raumkunst und Lichtgestaltung, TUM  
[www.ar.tum.de/lrl/startseite/](http://www.ar.tum.de/lrl/startseite/)

**Do. 28.02. – So. 19.05.2019** **10.00 – 18.00 Uhr**  
Die neue Heimat (1950 – 1982).  
Eine sozialdemokratische Utopie und ihre Bauten  
Ausstellung  
Architekturmuseum der TUM in der Pinakothek  
der Moderne, Barer Str. 40, München  
Architekturmuseum der TUM  
[www.architekturmuseum.de/aktuell](http://www.architekturmuseum.de/aktuell)

**Do. 13.06. – So. 08.09.2019** **10.00 – 18.00 Uhr**  
Zugang für alle.  
São Paulos soziale Infrastrukturen  
Ausstellung  
Architekturmuseum der TUM in der Pinakothek  
der Moderne, Barer Str. 40, München  
Architekturmuseum der TUM  
[www.architekturmuseum.de/aktuell](http://www.architekturmuseum.de/aktuell)

## Mai 2019

**Mi. 08.05.2019** **10.00 – 11.00 Uhr**  
Überzeugende Lebensläufe für  
Promovierende und Postdocs  
Webinar  
Online  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mi. 08.05.2019** **17.00 – 18.00 Uhr**  
INSIDE\OUT, der Forschungspavillon  
Führung  
TUM Campus München, Innenhof Hauptgebäude,  
Arcisstraße 21  
Lehrstuhl für Tragwerksplanung  
und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Do. 09.05.2019** **17.30 – 19.00 Uhr**  
Ran an die TUM:  
Where management meets technology  
Vortrag  
TUM Campus München,  
Hörsaal 1180, 1. OG, Arcisstraße 21  
ExploreTUM  
[www.schueler.tum.de/ran](http://www.schueler.tum.de/ran)

**Di. 14.05.2019** **09.30 – 16.00 Uhr**  
IKOM Life Science  
Studentische Karrieremesse  
TUM Campus Weihenstephan  
Liesel-Beckmann-Straße  
Karriereforum IKOM  
[www.ikom.tum.de/de/ikom-lifescience](http://www.ikom.tum.de/de/ikom-lifescience)

**Di. 14.05.2019** **18.30 – 20.00 Uhr**  
Der öffentliche Verkehr in der digitalen  
Transformation der Stadt  
Vortrag  
TUM Campus München  
Vorhoelzer Forum, Arcisstraße 21  
Lehrstuhl für Raumentwicklung, TUM  
[www.re.ar.tum.de/vortagsreihe-verkehr](http://www.re.ar.tum.de/vortagsreihe-verkehr)

**Mi. 15.05.2019** **18.15 – 20.00 Uhr**  
Abenteuer Berufseinstieg  
Kollegiale Beratung  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mi. 15.05.2019** **19.00 – 21.00 Uhr**  
Kompetenzen für die Arbeitswelt 4.0  
Mentoring Netzwerktreffen  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Do. 16.05.2019** **17.00 – 20.00 Uhr**  
Zu Besuch in Iffeldorf  
Vortrag und Führung  
Limnologische Station Iffeldorf, Hofmarkt 1–3  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Do. 16.05.2019** **18.00 – 20.00 Uhr**  
Erfolge sichtbar machen  
Workshop für Women of TUM  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**So. 19.05.2019** **11.00 – 12.30 Uhr**  
Wissenschaftsmatinee:  
Die molekulare Welt des guten Geschmacks  
Vortrag  
TUM Campus Garching, TUM-IAS  
Lichtenbergstraße 2a  
Institute for Advanced Study (TUM-IAS)  
[www.ias.tum.de/events/nachbarn](http://www.ias.tum.de/events/nachbarn)

**Do. 23.05.2019** **ganztägig**  
IKOM Consulting Day  
Workshop mit Unternehmen  
München  
Karriereforum IKOM  
[www.ikom.tum.de/de/ikom-consultingday](http://www.ikom.tum.de/de/ikom-consultingday)

**Do. 23.05.2019** **17.30 – 19.00 Uhr**  
Ran an die TUM: Keine Gesundheit ohne Sport?  
Vortrag  
TUM Campus München  
Hörsaal 1180, 1. OG, Arcisstraße 21  
ExploreTUM  
[www.schueler.tum.de/ran](http://www.schueler.tum.de/ran)

**Do. 23.05.2019** **18.15 – 20.00 Uhr**  
Abenteuer Führung  
Kollegiale Beratung  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Do. 23.05.2019** **18.30 – 20.00 Uhr**  
Verkehr Aktuell  
Vortrag  
Verkehrszentrum des Deutschen Museums,  
Am Bavariapark 5, München  
Kosten: 3 Euro, Studierende frei  
Lehrstuhl für Verkehrstechnik, TUM  
[www.vt.bgu.tum.de/veranstaltungen/verkehr-aktuell](http://www.vt.bgu.tum.de/veranstaltungen/verkehr-aktuell)

**Di. 28.05.2019** **19.00 – 21.00 Uhr**  
TUM@Freising: Dein Lebensretter: Das Schwein  
Vortrag  
Lindenkeller, Veitsmüllerweg 2, Freising  
TUM und Stadt Freising  
[freising.wzw.tum.de/index.php?id=17](http://freising.wzw.tum.de/index.php?id=17)

## Juni 2019

**Mo. 03.06. – Fr. 07.06.2019** **ab 14.00 Uhr**  
GARNIX 2019  
Studentisches Open Air Festival  
TUM Campus Garching, Vorplatz des Mathematik  
und Informatik Gebäudes, Boltzmannstraße 3  
Studentische Vertretung der TUM  
[www.garnix-festival.de](http://www.garnix-festival.de)



**Di. 04.06.2019 19.00–21.00 Uhr**

Für sich selbst sorgen!  
Mentoring Netzwerktreffen  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mi. 05.06.2019 17.00 Uhr (Start)**

7. TUM Campuslauf 2019  
Sportveranstaltung  
TUM Campus Garching  
gestaffelte Anmeldegebühr  
TUM: Junge Akademie  
[www.jungeakademie.tum.de/tum\\_campuslauf2019](http://www.jungeakademie.tum.de/tum_campuslauf2019)

**Mi. 05.06.2019 17.00–18.00 Uhr**

INSIDE\OUT, der Forschungspavillon  
Führung  
TUM Campus München, Innenhof Hauptgebäude,  
Arcisstraße 21  
Lehrstuhl für Tragwerksplanung  
und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mi. 05.06.2019 19.00 Uhr**

IKOM Award Zukunftsarbeitgeber 2019  
Verleihung  
TUM Campus München  
Vorhoelzer Forum, Arcisstraße 21  
Karriereförderung IKOM  
[www.ikom.tum.de/de/ikom-award/home](http://www.ikom.tum.de/de/ikom-award/home)

**Do. 06.06.2019 14.00–16.00 Uhr**

Nobelpreisträger Joachim Frank  
zu Besuch an der TUM  
Vortrag  
TUM Campus Garching  
TUM-IAS, Lichtenbergstraße 2a  
Institute for Advanced Study (TUM-IAS)  
und Fakultät für Chemie, TUM  
[www.ch.tum.de](http://www.ch.tum.de)

**Do. 06.06.2019 17.30–19.00 Uhr**

Ran an die TUM:  
Mehr als Mischen von Substanzen im Labor  
Vortrag  
TUM Campus München  
Hörsaal 1180, 1. OG, Arcisstraße 21  
ExploreTUM  
[www.schueler.tum.de/ran](http://www.schueler.tum.de/ran)

**Do. 06.06.2019 18.00–19.30 Uhr**

Career Lounge  
Podiumsdiskussion  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Do. 06.06.2019 18.30–20.00 Uhr**

Verkehr Aktuell  
Vortrag  
Verkehrszentrum des Deutschen Museums  
Am Bavariapark 5, München  
Kosten: 3 Euro, Studierende frei  
Lehrstuhl für Verkehrstechnik, TUM  
[www.vt.bgu.tum.de/veranstaltungen/verkehr-aktuell](http://www.vt.bgu.tum.de/veranstaltungen/verkehr-aktuell)

**Fr. 07.06.2019 11.30 – 13.00 Uhr**

Global minds:  
Bewerben und Arbeiten in den USA/UK  
Vortrag mit Erfahrungsberichten  
TUM Campus München  
Sprachenzentrum und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mi. 12.06.2019 18.15–20.00 Uhr**

Abenteuer Berufseinstieg  
Kollegiale Beratung  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mo. 17.06.–Fr. 21.06.2019 ab 14.00 Uhr**

TUNIX 2019  
Studentisches Open Air Festival  
TUM Campus München  
Studentische Vertretung der TUM  
[www.tunix.de](http://www.tunix.de)

**Di. 18.06.2019 18.30–20.00 Uhr**

Der öffentliche Verkehr in der  
digitalen Transformation der Stadt  
Vortrag  
TUM Campus München  
Vorhoelzer Forum, Arcisstraße 21  
Lehrstuhl für Raumentwicklung, TUM  
[www.re.ar.tum.de/vortragsreihe-verkehr](http://www.re.ar.tum.de/vortragsreihe-verkehr)

**Mo. 24.06.–Do. 27.06.2019 09.30–16.30 Uhr**

IKOM – Studentische Karrieremesse  
TUM Campus Garching  
Fakultät Maschinenwesen, Boltzmannstraße 15  
Karriereförderung IKOM  
[www.ikom.tum.de/de/ikom](http://www.ikom.tum.de/de/ikom)

**Mo. 24.06.2019 15.30–21.00 Uhr**

TUM Entrepreneurship Day  
Die Start-ups der TUM stellen sich vor  
TUM Campus München  
Audimax, Arcisstraße 21  
TUM ForTe – Forschungsförderung  
und Technologietransfer  
[www.tum.de/wirtschaft/entrepreneurship/day](http://www.tum.de/wirtschaft/entrepreneurship/day)

**Di. 25.06.2019 09.30–16.00 Uhr**

IKOM Start-up  
Studentische Karrieremesse  
TUM Campus Garching  
Fakultät für Mathematik und Informatik  
Boltzmannstraße 3  
Karriereförderung IKOM  
[www.ikom.tum.de/de/ikom-startup](http://www.ikom.tum.de/de/ikom-startup)

**Mi. 26.06.2019 ab 14.00 Uhr**

Tag der Physik  
Jahresfeier  
TUM Campus Garching  
Physik-Hörsaal 1, James-Frank-Str. 1  
Fakultät für Physik  
[www.ph.tum.de/latest/events](http://www.ph.tum.de/latest/events)

**Do. 27.06.2019 17.30–19.00 Uhr**

Ran an die TUM: Durch Orientierung zum Erfolg!  
Vortrag  
TUM Campus München  
Hörsaal 1180, 1. OG, Arcisstraße 21  
ExploreTUM  
[www.schueler.tum.de/ran](http://www.schueler.tum.de/ran)

**Fr. 28.06.2019 15.00–16.30 Uhr**

Global minds: Bewerben und Arbeiten in Japan  
Vortrag mit Erfahrungsberichten  
TUM Campus München  
Sprachenzentrum und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

## Juli 2019

**Mi. 03.07.2019 ganztägig**

Frühjahrssitzung der Münchner  
Dermatologischen Gesellschaft (MDG)  
Symposium  
Klinik und Poliklinik für Dermatologie  
und Allergologie am Biederstein der TUM  
Biedersteiner Str. 29, München  
Klinik und Poliklinik für Dermatologie  
und Allergologie am Biederstein, TUM  
[www.derma-allergie.med.tum.de/](http://www.derma-allergie.med.tum.de/)

**Mi. 03.07.2019 17.00–18.00 Uhr**

INSIDE\OUT, der Forschungspavillon  
Führung  
TUM Campus München  
Innenhof Hauptgebäude, Arcisstraße 21  
Lehrstuhl für Tragwerksplanung  
und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mi. 03.07.2019 18.00–19.30 Uhr**

Career Lounge  
Podiumsdiskussion  
TUM Campus Garching  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Do. 04.07.2019 18.15–20.00 Uhr**

Abenteuer Führung  
Kollegiale Beratung  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Do. 04.07.2019 18.30–20.00 Uhr**

Verkehr Aktuell  
Vortrag  
Verkehrszentrum des Deutschen Museums  
Am Bavariapark 5, München  
Kosten: 3 Euro, Studierende frei  
Lehrstuhl für Verkehrstechnik, TUM  
[www.vt.bgu.tum.de/veranstaltungen/verkehr-aktuell](http://www.vt.bgu.tum.de/veranstaltungen/verkehr-aktuell)

**Fr. 05.07.2019 15.00–16.30 Uhr**

Global minds: Bewerben und Arbeiten in Indien  
Vortrag mit Erfahrungsberichten  
TUM Campus München  
Sprachenzentrum und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Di. 09.07.2019 16.45–18.15 Uhr**

Global minds:  
Bewerben und Arbeiten in Schweden  
Vortrag mit Erfahrungsberichten  
TUM Campus München  
Sprachenzentrum und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mi. 10.07.2019 10.00 – 11.00 Uhr**

Überzeugende Lebensläufe für  
Promovierende und Postdocs  
Webinar, Online  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Mi. 10.07.–Fr. 12.07.2019 ganztägig**

23rd International Congress on Insurance:  
Mathematics and Economics (IME 2019)  
Kongress  
München, Sheraton Hotel Arabellapark  
Arabellapark 5  
Anmeldung bis 30. April 2019  
Lehrstuhl für Finanzmathematik, TUM  
[www.mathfinance.ma.tum.de/ime-2019](http://www.mathfinance.ma.tum.de/ime-2019)

**Do. 11.07.2019 18.00–19.30 Uhr**

Career Lounge  
Podiumsdiskussion  
TUM Campus Weihenstephan  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Fr. 12.07.2019 19.00–21.00 Uhr**

Dine Around the World – Women of TUM Special  
Netzwerktreffen  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

**Fr. 12.07.2019 16.00–20.00 Uhr**

Drachenbootrennen  
Sportveranstaltung  
Olympiasee, München  
TUM und LMU  
[www.tu-drachenboot.de](http://www.tu-drachenboot.de)

## Immer aktuell informiert

Manche Veranstaltungen und Termine erreichen  
uns nur kurzfristig. Wenn Sie stets aktuell informiert  
bleiben wollen, melden Sie sich zum Newsletter  
„Die TUM informiert“ an:  
[www.community.tum.de](http://www.community.tum.de) > Mein Profil > Abos

Sie brauchen dazu Ihre **TUM Kennung**.  
Sie wissen nicht mehr, wie diese lautet?  
Kein Problem! Schreiben Sie einfach eine  
E-Mail an: [alumniundcareer@tum.de](mailto:alumniundcareer@tum.de)

### Di. 16.07.2019 18.30–20.00 Uhr

Der öffentliche Verkehr in der digitalen Transformation der Stadt  
Vortrag  
TUM Campus München  
Vorhoelzer Forum, Arcisstraße 21  
Lehrstuhl für Raumentwicklung, TUM  
[www.re.ar.tum.de/vortragsreihe-verkehr](http://www.re.ar.tum.de/vortragsreihe-verkehr)

### Mi. 17.07.2019 18.15–20.00 Uhr

Abenteuer Berufseinstieg  
Kollegiale Beratung  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

### Do. 18.07.2019 19.00–21.00 Uhr

TUM@Freising:  
Wie geht es unseren Fischen und Gewässern?  
Vortrag  
Lindenkeller, Veitsmüllerweg 2, Freising  
TUM und Stadt Freising  
[freising.wzw.tum.de/index.php?id=17](http://freising.wzw.tum.de/index.php?id=17)

### Do. 18.07.2019 18.30–20.00 Uhr

Verkehr Aktuell  
Vortrag  
Verkehrszentrum des Deutschen Museums  
Am Bavariapark 5, München  
Kosten: 3 Euro, Studierende frei  
Lehrstuhl für Verkehrstechnik, TUM  
[www.vt.bgu.tum.de/veranstaltungen/verkehr-aktuell](http://www.vt.bgu.tum.de/veranstaltungen/verkehr-aktuell)

### Di. 23.07.2019 18.30–20.00 Uhr

Der öffentliche Verkehr in der digitalen Transformation der Stadt  
Vortrag  
TUM Campus München  
Vorhoelzer Forum, Arcisstraße 21  
Lehrstuhl für Raumentwicklung, TUM  
[www.re.ar.tum.de/vortragsreihe-verkehr](http://www.re.ar.tum.de/vortragsreihe-verkehr)

### Mo. 29.07.–Fr. 06.09.2019 ganztägig

Mädchen machen Technik  
Ferienprogramm  
Verschiedene Hochschulen und Forschungseinrichtungen in Bayern  
Anmeldung ab Juli 2019  
agentur Mädchen in Wissenschaft und Technik und TUM  
[www.maedchenmachentechnik.de](http://www.maedchenmachentechnik.de)

### August 2019

### Mi. 07.08.2019 17.00–18.00 Uhr

INSIDE\OUT, der Forschungspavillon  
Führung  
TUM Campus München  
Innenhof Hauptgebäude, Arcisstraße 21  
Lehrstuhl für Tragwerksplanung und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

### September 2019

### Mi. 18.09.–Fr. 20.09.2019 ganztägig

PIA19 – Photogrammetric Image Analysis 2019  
Tagung  
TUM Campus München  
Kostenpflichtig  
Professur für Photogrammetrie und Fernerkundung, TUM  
[www.pf.bgu.tum.de/isprs/pia19/](http://www.pf.bgu.tum.de/isprs/pia19/)

### Mi. 18.09.–Fr. 20.09.2019 ganztägig

MRSS19 – Munich Remote Sensing Symposium 2019  
Tagung  
TUM Campus München  
Kostenpflichtig  
Professur für Photogrammetrie und Fernerkundung, TUM  
[www.mrss.tum.de](http://www.mrss.tum.de)

### Do. 19.09.2019 18.15–20.00 Uhr

Abenteuer Führung  
Kollegiale Beratung  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

### Di. 24.09.2019 19.00–21.00 Uhr

TUM@Freising: Eiweiße als Schlüssel zum Verständnis des Lebens  
Lindenkeller, Veitsmüllerweg 2, Freising  
TUM und Stadt Freising  
[freising.wzw.tum.de/index.php?id=17](http://freising.wzw.tum.de/index.php?id=17)

### Oktober 2019

### Mi. 02.10.2019 17.00–18.00 Uhr

INSIDE\OUT, der Forschungspavillon  
Führung  
TUM Campus München  
Innenhof Hauptgebäude, Arcisstraße 21  
Lehrstuhl für Tragwerksplanung und Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

### Mo. 28.10.–Fr. 01.11.2019 ganztägig

Studier's doch! Ei in einer Woche.  
Schnupperstudium  
TUM Campus München  
Fakultät für Elektrotechnik und Informationstechnik, Theresienstraße 90  
Bewerbung bis 15. Oktober 2019  
Fakultät für Elektrotechnik und Informationstechnik  
[www.ei.tum.de/studium/schnupperstudium](http://www.ei.tum.de/studium/schnupperstudium)

### Di. 29.10.–Do. 31.10.2019 ganztägig

Herbstuniversität: Schülerinnen forschen  
Ferienprogramm  
Verschiedene TUM Standorte  
Kosten: 12 EUR pro Projekttag  
Anmeldung ab September 2019  
agentur Mädchen in Wissenschaft und Technik und TUM  
[www.herbstuniversitaet.de](http://www.herbstuniversitaet.de)

### Herbst 2019 halbtägig

Women of TUM Talk  
Vortrag und Netzwerktreffen  
TUM Campus München  
Alumni & Career, TUM  
[www.together.tum.de/events](http://www.together.tum.de/events)

## Führung

## INSIDE\OUT, der Forschungspavillon

Lassen Sie sich innovative Forschung vom Projektleiter erklären! Der asymptotische Pavillon „INSIDE\OUT“ ist das sichtbar gewordene Ergebnis jahrelanger – und äußerst erfolgreicher – Forschung. Im Projekt „Repetitive Gitterstrukturen“ am Lehrstuhl für Tragwerksplanung befassen sich Experten aus Mathematik, Bauingenieurwesen und Architektur mit der Struktur elastisch gebogener Gitterschalen. Erstmals gelang es so, eine Konstruktionsweise zu entwickeln, die es ermöglicht, doppelt gekrümmte Gitter aus geraden – asymptotischen – Lamellen mit ausschließlich rechtwinkligen Knotenverbindungen zu bauen. Das gefertigte Objekt, ein 9 x 12 Meter großer Pavillon, steht im Innenhof des TUM-Hauptgebäudes an der Arcisstraße.

Bei der Führung für Alumni gibt Projektleiter und TUM Alumnus Eike Schling (Diplom Architektur 2008) jeden ersten Mittwoch im Monat einen Einblick in die Entwicklung und Konstruktion des Pavillons.

Mittwoch | 08.05.2019 | 17.00 – 18.00 Uhr

Mittwoch | 05.06.2019 | 17.00 – 18.00 Uhr

Mittwoch | 03.07.2019 | 17.00 – 18.00 Uhr

Mittwoch | 07.08.2019 | 17.00 – 18.00 Uhr

Mittwoch | 02.10.2019 | 17.00 – 18.00 Uhr

TUM Campus München  
Innenhof Hauptgebäude  
Arcisstraße 21, München



Anmeldung: [www.together.tum.de/events](http://www.together.tum.de/events)

## Zeit für Karriere!

Als Alumni der TUM können Sie auch alle Angebote des Karriereprogramms der TUM wahrnehmen. Die Termine für das Sommersemester finden Sie unter [www.together.tum.de/zeit-fuer-karriere](http://www.together.tum.de/zeit-fuer-karriere).



# A B C ... ... X Y Z

## Alumni Associations

### Bund der Freunde der TUM

The Association of Friends of TUM is TUM's long standing big circle of friends.

[www.bund-der-freunde.tum.de](http://www.bund-der-freunde.tum.de)

### Specialist and Faculty Alumni Groups

In over 30 alumni associations, alumni stay in touch with employees and students of their field of specialisation, their institute or faculty and take the opportunity to exchange ideas with like-minded people.

[www.together.tum.de/alumni/gruppen](http://www.together.tum.de/alumni/gruppen)

### TUM Asia Alumni Network

The foreign branch of TUM in Singapore, the German Institute of Science and Technology – TUM Asia, intensively maintains connections to their alumni.

[www.tum-asia.edu.sg](http://www.tum-asia.edu.sg)

## Library

### Universitätsbibliothek der TUM

Even as an alumni, you are welcome to use the university library. The sub-libraries at the campuses in Munich, Garching, Weihenstephan and Straubing provide you with the most comprehensive service.

[www.ub.tum.de/alumni](http://www.ub.tum.de/alumni)

## Choirs

### Campus Choir Garching

Probe: donnerstags  
18.00 – 19.40 Uhr  
Campus Garching  
Fakultätsgebäude Mathematik / Informatik,  
Raum MI 00.13.009A

[www.ccg.tum.de](http://www.ccg.tum.de)

### Choir of Weihenstephaner Musikwerkstatt

Rehearsals: Wednesdays  
8.15 pm – 10 pm  
Campus Weihenstephan  
Central Lecture Hall Building, HS 16

[www.weihenstephaner-musikwerkstatt.de](http://www.weihenstephaner-musikwerkstatt.de)

### TUMChor

Eight project rehearsals  
Campus Munich and Philharmonic Orchestra

[www.tum.de/unileben/musik-und-kunst/orchester-choere/tumchor/](http://www.tum.de/unileben/musik-und-kunst/orchester-choere/tumchor/)

### UniversitätsChor München

Rehearsals: Tuesdays  
7 pm LMU Main Building, Small Aula

[www.unichor.de](http://www.unichor.de)

## Cinema

### Der TU-Film

The TU Movie has been founded around 1955 and was then still called TH Movie. Students are still organising the TU Movie and screen over 20 movies each semester.

### CAMPUS MUNICH

Carl von Linde Lecture Hall 1.200  
Entrance: around 7.30 pm  
Screening start: around 8 pm  
Tickets: 3 € / Double Feature 5 €  
Organised by: tu film e. V.

Current program at: [www.tu-film.de/programm](http://www.tu-film.de/programm)

## Orchester

### Bigband der Weihenstephaner Musikwerkstatt

Rehearsals: Thursdays  
7.45 pm – 9.45 pm  
Campus Weihenstephan, Rehearsal Room in the basement of the Central Lecture Hall Building

[www.weihenstephaner-musikwerkstatt.de](http://www.weihenstephaner-musikwerkstatt.de)

### Orchester der Weihenstephaner Musikwerkstatt

Rehearsals: Wednesdays  
6.30 pm – 8 pm  
Weihenstephan, HS 14

[www.weihenstephaner-musikwerkstatt.de](http://www.weihenstephaner-musikwerkstatt.de)

### Sinfonietta

Rehearsals: Wednesdays 7.30 pm  
(during the semester) Campus Munich, HS 0120

[www.sinfonietta-muenchen.de](http://www.sinfonietta-muenchen.de)

### Symphonisches Ensemble München

Rehearsals: Thursdays  
7.30 pm – 10 pm  
Campus Munich, HS 0120

[www.sem-muenchen.de](http://www.sem-muenchen.de)

### TUM JazzBand

Rehearsals: Thursdays  
6.30 pm – 9 pm  
Jazzband Campus Munich, HS 2100

[www.jazzband.tum.de/en/](http://www.jazzband.tum.de/en/)

## Sports

### TUM Runners Group

Saturdays 11 am  
Munich  
Meeting Point: Milchhäusl in the English Garden  
No registration  
Contact: [carl.ebbinghaus@tum.de](mailto:carl.ebbinghaus@tum.de)

[www.community.tum.de/gruppen/tum-laufgruppe/](http://www.community.tum.de/gruppen/tum-laufgruppe/)

### University Sports Centre Munich (ZHS)

Alumni can acquire eligibility to participate in university sports as members of the Förderverein of ZHS for a fee.

[www.zhs-muenchen.de/foerderverein-des-zhs-muenchen](http://www.zhs-muenchen.de/foerderverein-des-zhs-muenchen)

## Languages

### English Stammtisch Garching

Tuesday 1 pm – 2 pm  
Campus Garching  
Campus Cneipe  
No registration

[sprachenzentrum@zv.tum.de](mailto:sprachenzentrum@zv.tum.de)

### Language Courses at the Language Centre

If free spots are available, alumni can join courses offered by the TUM Language Centre. Inquiries indicating the language, level, lecturer and time can be sent to:

[sprachenzentrum@zv.tum.de](mailto:sprachenzentrum@zv.tum.de)  
[www.sprachenzentrum.tum.de](http://www.sprachenzentrum.tum.de)

Since April 2019 **Dominik Asam (Diploma Mechanical Engineering 1994)** is Airbus SE's new Chief Financial Officer: furthermore, he has been appointed to the Board of Trustees at Bertelsmann Foundation starting from January 1st, 2019. He was CFO of Infineon Technologies AG since 2011. ■ In October 2018, **Alena Borries (Executive MBA Innovation and Business Creation 2017)** became part of the Management Board at Berlin Recycling GmbH. ■ **Adrian Candussio (Bachelor Mechanical Engineering 2016, Master 2018)** received the Drive-E-Study Award 2018. In his thesis on energy storage, he analysed the ageing of lithium ion cells. ■ Effective January 1st, 2001, **Dr. René Fáber (Doctorate Chemistry 2001)** was appointed as a new member of the Executive Board of Sartorius AG. He has worked for the company since 2002. ■ **Michael Fuchs (Bachelor Computer Science and Mathematics 2011, Master 2015)** is the new co-coach for match analysis and training diagnostics at the German Paralympic Committee in the discipline of table tennis. ■ **Fun Man Fung (Master Industrial Chemistry 2012)** has been accepted to the International Union of Pure and Applied Chemistry. He is a scientist and teacher at the National University of Singapore. ■ **Dr. Pedro Agustin Gomez Damian (Master Biomedical Computing 2015, Doctorate 2017)** was awarded first place at the TUM IdeAward 2018 for his imaging techniques, which enable the sexing of poultry embryos prior to hatching and thus prevent the killing of so-called one-day-chicks. ■ **Prof. Dr. Sami Haddadin (Diploma Electrical and Computer Engineering 2005, Master Computer Science 2009)** was awarded the coveted Gottfried Wilhelm Leibniz Prize, which is endowed with 2.5 million euros and is awarded to researchers who have reached outstanding fundamental achievements at an early stage. Following positions in Aachen and Hanover, Sami Haddadin has been Professor of Robotics and System Intelligence at TUM and Director of the Munich School of Robotics and Machine Intelligence (MSRM) since April 2018. ■ **Prof. Dr. Rupert Huber (Diploma Physics 2000, Doctorate 2004)** was also awarded the Gottfried Wilhelm Leibniz Prize. With this award, the German Research Foundation honours the outstanding experimental work of the physicist, who holds the Chair of Experimental and Applied Physics at the University of Regensburg. ■ The new Head of the Bavarian School for Forest Farming at Goldberg near Kelheim will be **Peter Hummel (Diploma Forest Science 2004)**. Previously, he was Head of Department at the Office for Food, Agriculture and Forestry in Schwandorf. ■ From April 2019, **Jan-Nicolas Isaakson (Diploma Architecture 2011)** will be heading the Investment Team of the real estate consultancy Cushman & Wakefield in the role of International Partner. Prior to joining Cushman & Wake, he was the National Director at Jones Lang LaSalle for about eight years. ■ **Angelika Jais (Diploma Surveying 1986)** is now heading the Office for Digitisation, Broadband and Surveying in Weilheim. Previously, she was Head of Department at the Bavarian State Ministry of Finance, Regional Development and Homeland. ■ **Dr. Heather Kathis (Master Transportation Systems 2011, Doctorate 2017)** was honoured by the Bavarian State Ministry of Science and the Arts for her outstanding doctoral thesis. ■ **Dr. Volker Kefer (Diploma Mechanical**

**Engineering 1983, Doctorate 1989)** has been the new President of the Association of German Engineers (VDI) since January 2019. From 2006 to 2016, he was employed by Deutsche Bahn AG, where he was Board Member for the unit Infrastructure, Services and Technology and Deputy Chairman of the Management Board of DB AG. ■ Since October 2018, **Mathias Keil (Diploma Brewing and Beverage Technology 2000, management-oriented postgraduate studies in Business Administration 2003)** has been a new member of the Kulmbacher Brewery Executive Board and is responsible for Finance and Technology. His last position was Head of Controlling at the Paulaner Group. ■ At the beginning of January 2019, **Dr. Jörg Kempf (Diploma Chemistry 1994, Doctorate 1997)** took over extended tasks and is now co-editor-in-chief of the trade journal Process. Jörg Kempf has been editor-in-chief in the same house since January 2002 and deputy editor-in-chief since January 2006. ■ This year, the Logistics Science Award of the German Logistics Association (BVL) goes to industrial engineer and logistics consultant **Dr. Eva Klenk (Doctorate Materials Handling, Material Flow, Logistics 2017)**. She receives the award for her dissertation on performance evaluation of in-plant milk-run systems with fluctuating transportation demand. ■ **Dr. Hanns Joachim Kyrein (Doctorate Biochemistry 1971)** and his wife Marie-Noelle Kyrein-Fuchs were awarded the Putzbrunner Citizens Medal. They received the award for their many years of ecological commitment to improving the quality of drinking water. Prior to his retirement, Hanns Joachim Kyrein was Vice-Director of Pharmaceutical Research at Novartis Consumer Health. ■ Since October 1st, 2018 **Dr. Bernd Mandel (Doctorate Human Medicine 1997)** has been in charge of the Central Emergency Ward of the Sana-Klinikum Hof. Previously, he was Deputy Head of the Central Emergency Ward at Kulmbach Hospital. ■ **Dr. Silke Maurer (Diploma Mechanical Engineering 1997)** became a member of the Management Board of BSH Hausgeräte GmbH on March 1st, 2019. As Chief Operating Officer, she will be responsible for Manufacturing, Development, Innovation, as well as Corporate Technology and Global Supply Chain Management. ■ The new head of the Schwandorf Office of Food, Agriculture and Forestry is **Georg Mayer (Diploma Agricultural Science 1983)**. Prior to this, he was Head of the Office for Nutrition, Agriculture and Forestry in Cham and its agricultural school for ten years. ■ **Prof. Dr. Martin Mensinger and doctoral student Christian Gaigl (Bachelor Civil Engineering 2011, Master 2012)** from the Chair of Metal Structures were awarded first prize of the Innovation Award 'Feuerverzinken' 2018 for their research project 'Fire Resistance of Hot-dip Galvanized Constructions'. ■ **Prof. Dr. Thomas Misgeld (Doctorate Medicine 1999)** was awarded TUM's Heinz Maier-Leibnitz-Medal for his research results on the mechanisms of degeneration of axons and synapses in neurological diseases. ■ **Tim Mittler (Bachelor Automotive and Combustion Engine Technology 2011, Master 2014)** has been honoured for outstanding research results in the production of bimetals. Together with his co-author **Thomas Greß (Bachelor Automotive and Combustion Engine Technology 2013, Master 2016)**, he was awarded the Innovation Award of



the German Copper Institute, a very prestigious prize in their field. ■ **Prof. Dr. Peter Müller-Buschbaum (Habilitation Physics 2002)** is the new Scientific Director of the Neutron Source for Research Heinz Maier-Leibnitz (FRM-II). The internationally renowned scientist has specialised in the physics of thin layers, especially polymer films. ■ **Christin Müller-Lisa (Bachelor Forest Science and Resource Management 2013, Master Forest and Wood Science 2015)** is the new Managing Director of the Forest Owners Association Kronach-Rothenkirchen. ■ The Investment company NN Investment Partners makes **Anja Nieberding (Diploma Mathematics 2003)** Chief Executive Germany. She starts on June 1st, 2019 and is responsible for the growth and further development of activities and the client base, including business relationships with financial advisors in Germany. She has 20 years of experience in the financial sector. ■ **Hans Jörg Oelschlegel (Diploma Civil Engineering 2000)** has taken over the position of Head of Road Construction at the Public Building Authority in Freising in December 2018. Most recently, he was Deputy State Parliament Commissioner at the State Ministry for Housing, Construction and Transport. ■ **Prof. Dr. Winfried Petry (Diploma in Physics 1976)** has been added to the circle of TUM Emeriti of Excellence. For 17 years he was the Scientific Director of FRM II, and Professor for Functional Materials at TUM for 27 years. ■ **Prof. Dr. Roland Rad (Doctorate Human Medicine 2004, Habilitation 2011)** and **Prof. Dr. Dieter Saur (Doctorate Human Medicine 2001, Habilitation 2006)** were awarded the German Cancer Award 2019 in the category 'Experimental Research'. The award sponsored by the German Cancer Society and the German Cancer Foundation is one of the highest distinctions of Oncology in Germany. ■ The KlarText Prize for Science Communication 2018 awarded by the Klaus Tschira Foundation in the category 'Mathematics' went to **Dr. Katharina Schaar (Bachelor Mathematics 2011, Master Mathematics 2013, Doctorate Geometry 2017)** for her contribution 'Pure Mathematics'. ■ **Prof. Dr. Joachim Schachtner (Doctorate Biology 1994)** has taken over the office of President of Clausthal University of Technology in the beginning of 2019. Previously Joachim Schachtner was Vice President for Information and Quality Management at the Philipps-Universität Marburg. ■ **Isabell Scheifele (Master Industrial Biotechnology 2017)** received the Best Thesis Award 2018 in the category 'Master Theses' at the annual award ceremony of the Institute for Bioprocessing and Analytical Measurement Techniques. ■ For his master's thesis **Julian Schmidt (Bachelor Civil Engineering 2015, Master Civil Engineering 2018)** was awarded with the City of Munich's University Prize 2018. In his thesis at the Department of Civil, Geo and Environmental Engineering, he deals with the former 'Bayernkaserne' and the plans to put this area up for development. ■ **Apl. Prof. Dr. Robert Schmucker (Diploma Mechanical Engineering 1967, Doctorate 1970)** and his wife Renate Schmucker have been appointed Honorary Senators of TUM. The couple supported people in need during difficult times with private funds and was very committed to the TUM University Foundation. As a student Robert Schmucker founded the WARR – Scientific Workgroup for Rocketry and Spaceflight;

at TUM he teaches at the Chair of Astronautics. ■ The Bochum-born chemist **Prof. Dr. Wolfgang Schuhmann (Doctorate Chemistry 1986)** has been awarded the Electrochemical Society's Alessandro Volta Medal. ■ **Prof. Dr. Carsten Steger (Diploma Computer Science 1993, Doctorate 1998)** has been voted spokesman of the Technical Committee of the German Association for Pattern Recognition (Deutsche Arbeitsgemeinschaft für Mustererkennung e.V.). He is one of the co-founders of MVTec Software GmbH and Head of the Research Department. ■ **Dr. Stephan Spitz (Diploma in Electrical Engineering and Information Technology 1998, Doctorate 2002)** has assumed the position of Chief Strategy Officer at Secure Thingz, a sister company of IAR Systems. Stephan Spitz has more than 20 years of experience in the field of Information and Communication Security. ■ To honour his exemplary achievements in the vocational training of chemical laboratory assistants, **Hubert Walter (Brewing Technical Examination 1990)** was awarded the August Föppl Medal of TUM in October 2018. He is the Laboratory Manager at the Weihenstephan Research Centre for Brewing and Food Quality. ■ **Harald Weber (Diploma Agricultural Sciences 1984)** is going to be the new Head of the Public Office of Nutrition, Agriculture and Forestry in Coburg. He was previously Head of the Education and Counselling Department at the Coburg Office. ■ Since October 1st, 2018 **Dr. Andreas Wendt (Diploma Mechanical Engineering 1988, Doctorate 1992)** has been BMW Board Member for Purchasing and Supplier Network. He has been with BMW since 2002. Prior to that, he was responsible for the production of alternators, starters, brakes, amongst others, at Bosch for ten years. ■ In October 2018, **Dr. Elisabeth Windeisen-Holzhauser (Diploma Chemistry 1990, Doctorate 1993)** was awarded the August Föppl Medal of TUM for her exemplary achievements in the vocational training of chemical laboratory assistants and the active support of more sensitive trainees. She is Academic Senior Councillor at the Chair of Wood Science and Wood Technology. ■ Changeover at the Nuremberg Forest Enterprise: in the future, **Johannes Wurm (Diploma Forest Science 2004)** will be responsible for the Reichswald forest. Previously, he had already been Deputy Forest Manager in Waldsassen and worked at the Internal Audit Department of the Bavarian State Forests. ■ **Johannes Peter Zarnitz (Bachelor Computer Science 2015, Master of Computer Science 2017)** was awarded the Joseph and Sonja Ströbl Sponsorship Award for his research project. His research deals with the further development of head-up displays in vehicles. ■ **Gregor Zetsche (Master Automotive and Combustion Engine Technology 2011)** is the new CEO of MBition, a young software developer of Mercedes. He has worked for the Daimler Group since 2011 and was involved in the development of displays that show drivers how environmentally friendly their current driving is. ■ For her pioneering, internationally relevant research on mathematical signal processing and earth observation, **Prof. Dr. Xiaoxiang Zhu (Master ESPACE 2008, Doctorate Surveying 2011, Habilitation 2013)** was awarded the Heinz Maier-Leibnitz Medal of TUM in 2018. Furthermore, she also received the Leopoldina Early Career Award, which is endowed with 30,000 euros.

## IMPRINT

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### PHOTOS AND GRAPHIC ART

- 1 Adobe Stock/sumnersgraphicsinc
- 2 istockphoto/LiuSol (gold)
- 3 Magdalena Jooß/TUM
- 4 Astrid Eckert/TUM (President, opera); Adobe Stock/auris (stairs), istockphoto/LiuSol (gold)
- 5 Alexander Mahmoud/Nobel Media AB (Joachim Frank); Andreas Heddergott/TUM (Dragon Boat Race); Astrid Eckert/TUM (Maria and Dominik Sievert)
- 7 Astrid Eckert/TUM, istockphoto/LiuSol (gold)
- 8 Andreas Heddergott/TUM (Thiersch Tower, Angela Merkel, Markus Söder); Astrid Eckert/TUM (Frank-Walter Steinmeier)
- 9 Astrid Eckert/TUM (President); Andreas Heddergott/TUM (TUM 150)
- 10 Andreas Heddergott/TUM (staff celebration, Bauernfeind tomb)
- 11 Andreas Heddergott/TUM (President with students); Astrid Eckert/TUM (Eveline Gottzein, Roland Lacher, Raitenhaslach, opera)
- 12 Andreas Heddergott/TUM (King Ludwig, High Voltage Hall); Andreas Battenberg/TUM (oldtimer bus); TUM.University Press/Caroline Ennemoser (Alumni book)
- 13 Andreas Heddergott/TUM (MSRM, funding proposal); Astrid Eckert/TUM (TUM Ambassadors); Uli Benz/TUM (concert), istockphoto/LiuSol (gold)
- 14 Adobe Stock/auris, istockphoto/LiuSol (gold)
- 15 istockphoto/LiuSol (gold)
- 16 Astrid Eckert/TUM

- 19 Astrid Eckert/TUM
- 21 Astrid Eckert/TUM
- 22 Tobias Koch
- 25 Uli Benz/TUM
- 27 Tobias Koch
- 28 Alexander Gerner/TUM
- 31 KONUX
- 33 Alexander Gerner/TUM
- 34 Magdalena Jooß/TUM
- 37 Magdalena Jooß/TUM
- 39 Magdalena Jooß/TUM
- 40 Christin Büttner/TUM
- 43 Christin Büttner/TUM
- 44 istockphoto/LiuSol (gold)
- 45 Christin Büttner/TUM (Prof. Mang)
- 46-49 istockphoto/LiuSol (gold)
- 50/51 Uli Benz/TUM, istockphoto/LiuSol (gold)
- 52/53 Lilium Aviation
- 55 Adobe Stock/nancy10 (traffic); Adobe Stock/contrastwerkstatt (girl); Andreas Heddergott/TUM (Thomas Hofmann)
- 56/57 Alexander Mahmoud/Nobel Media AB (Konzerthaus, Joachim Frank)
- 58/59 Astrid Eckert/TUM
- 60 Cocofilms/Karbe Film (Technically Single); Astrid Eckert/TUM (pupil)
- 62/63 Andreas Heddergott/TUM
- 64 Privat (Barbara and Thomas Peither), Andreas Heddergott/TUM (IKOM)
- 66/67 Astrid Eckert/TUM
- 68 Uli Benz/TUM (TUM Entrepreneurship Day); Magdalena Jooß/TUM (Start-up Mentoring)
- 69 fotolia.de/lasedesignen
- 70/71 Magdalena Jooß/TUM
- 73 Adobe Stock/Yakobchuk Olena
- 74 Stefan Hilmer/ TUM Lehrstuhl für Technische Elektrophysik
- 77 istockphoto/LiuSol (gold)
- 78 Denis Hitrec
- 83 Adobe Stock/Trendsetter (Frau mit Tablet), istockphoto/LiuSol (gold)
- 84 Adobe Stock/alejomiranda (Ecuador); Privat (Falk Lamkewitz), istockphoto/LiuSol (gold)

### GRAPHIC DESIGN

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All dates in this issue may be subject to change. Please inform yourself before the respective event online or by telephone in case the event has been postponed or cancelled.

Pursuant to Article 3 (2) of Germany's Basic Law, men and women have equal rights. All persons and descriptions of functions in KontakTUM refer in equal measure to men and women. The use of the masculine form alone in some places serves only to make the text easier to read.

As of: April 2019

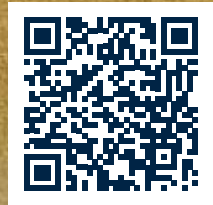
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# Roll the Film!

The great anniversary 2018 – TUM has captured it in moving pictures and made it into a film. With this cinematic review TUM would like to thank all participants who helped, organised and took part. Sit back and enjoy the highlights of a very eventful Anniversary Year.

The entire Youtube playlist of TUM at  
[www.youtube.com/user/tumuenchen1](https://www.youtube.com/user/tumuenchen1)



# TUM Alumni Trip 2019 to Ecuador

**8<sup>th</sup> – 23<sup>rd</sup> of September**

Possible 5-day-extension for Galapagos Islands

**Ecuador – the country on the equator after which it is named – impresses with its breath-taking nature and is one of the most geographically diverse countries on earth: with fertile floodplains on the Pacific Coast, the Amazon Lowlands with their rainforests and the snow-capped volcanoes in the Andes.**

The TUM Alumni Trip starts in Quito, located at almost 3,000 meters the highest capital of the world, and ends at the Pacific in Guayaquil, the country's most important port. Ecuador's diversity is reflected in the program. Initiator Falk Lamkewitz lists a few examples: "We go on a hike at Lake Cuicoa at the foot of the Cotacachi Volcano, visit the universities of Yachay and IKIAM, prepare hot chocolate from roasted cocoa beans together, visit an Indian cooperative and take a trip on the Napo River. One of the highlights of

the trip is a train ride down the Andes to the Devil's Nose, which is considered a technical masterpiece and not suited for the faint-hearted."

What makes this trip so special are the **Alumni Encounters**, whether it is with Bastienne and Pablo in their lodge in the middle of the Amazon rainforest, an alumni meeting with Omar in Quito or when visiting a hydroelectric power plant with Teodoro.

## Registration and Information

We are happy to send you the complete itinerary:  
[alumniundcareer@tum.de](mailto:alumniundcareer@tum.de)

Early registration is recommended due to the limited number of participants. The tour operator is Marco Polo.  
Price per person in a double room from 3,755 €  
Registration deadline: 24th of May 2019



Falk Lamkewitz (Diploma Electrical Engineering 1977) is the initiator of the TUM Alumni Trip to Ecuador. Contact him in the TUM Community:  
[www.community.tum.de/gruppen/alumni-reisen](http://www.community.tum.de/gruppen/alumni-reisen)