

Alumni Magazine

KontakTUM

How our
CREATIVITY
is Shaping
the World.

TRUE PIONEERS

The President
is visiting Celonis

AHA! EFFECT

Nobel Prize laureates
on creativity in research

INSPIRATION

Alumni and how music
contributes to their lives

[10] Deutschland
JAHRE STIPENDIUM

Wir sind dabei

TUM

10 Years of Deutschlandstipendium at TUM

A Scholarship That Provides Freedom to Create

Walking around the city campus, you can see Veronica Becker's (Master's student in Environmental Engineering) project in several places. Using raised vegetable beds, she and her team are not only making the campus greener, but also more livable. The Deutschlandstipendium provides her with the freedom to implement her ideas alongside her challenging degree program.

More on the anniversary fundraiser: www.tum.de/deutschlandstipendium

EDITORIAL

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



Dear Readers,

Each day we can observe the imagination of our kindergarten and school children. A stick quickly transforms into a magic wand, in the blink of an eye dad is turned into a saber-toothed tiger, and soup is made from water, sand and leaves.

Children allow their creativity to run free and inspire themselves and us with their highly imaginative view of the world. But creativity is more important today than ever before, not just for children, but for all of us.

We need to be creative in order to find lasting solutions to climate change, for example. In the face of new challenges, we continually have to change our perspective so as not to stand still and to allow for innovation. Every successful researcher and every brilliant engineer depends on leaving the well-trodden paths, adopting new perspectives, thinking disruptively and unconventionally in order to arrive at results that are fit for the future.

Our creativity is called for every day in a multitude of ways. And we all meet this challenge differently, depending on our field of expertise, what we have learned from our mentors, and our personal preferences. It is this diversity of creativity to which we have dedicated this issue of the Alumni Magazine.

We hope you find reading it inspiring. And if you come up with new ideas in the process, we look forward to hearing them: alumniundcareer@tum.de

Your KontakTUM editorial team

KontakTUM Magazine is turning **20**.

DID YOU ?
KNOW

KontakTUM is sent out to **58,000 addresses worldwide**.
The one furthest away is in Wellington, New Zealand.

It takes an average reader around **53 minutes** to read this issue
of KontakTUM front to back.

The **most elaborately produced cover** was the one featuring the President's
golden Chain of Office. It had been taken from the vault especially for a photo shoot.
This was the fall 2019 issue on the occasion of the presidential change.

www.community.tum.de/en/20-years-of-kontaktum

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Alumni tell us how music contributes to their lives

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How innovator Miriam Haerst ended up with her own company

Creativity is Everywhere

It is present when researchers and students believe in an idea and research it intensively. When they solve old and new problems in a different way than before. When they give free rein to their ideas, start with one question and find an answer to another in the process. When they look at an experimental set-up again and again from new perspectives, and when they go beyond the traditional understanding of their subject.

Particularly when it comes to global challenges, we need new and creative approaches – for example, when pushing ahead with research on resistant antibiotics. Like the laboratory worker here in the picture, who is analyzing bacterial samples at the TUM Institute of Medical Microbiology, Immunology and Hygiene.





True Pioneers

The President is visiting Celonis

A study project at TUM sparked their idea: Today, the company owned by TUM Alumni Bastian Nominacher, Martin Klenk and Alexander Rinke is worth 11 billion dollars, making it one of the most valuable start-ups in Europe: Celonis.





President Thomas F. Hofmann has known Celonis since its early beginnings as a founding idea of three young students. Now, he has visited the company's headquarters on Theresienstrasse in Munich.

In September 2021, TUM President Thomas F. Hofmann visited the Munich headquarters of Celonis. With TUM Alumni, entrepreneur and Co-CEO Bastian Nominacher he talked about creativity, technical expertise and perseverance – or in short: about how business ideas are developed.



Celonis has rented several floors of office space on Theresienstrasse. If they want privacy during a meeting or a phone call, employees can retreat to small telephone booths. On the tour, President Thomas F. Hofmann insisted on challenging Bastian Nominacher to a quick round of table football.

Mr. Nominacher, how important is perseverance in the development of good ideas?

BASTIAN NOMINACHER: Very important – and also for being a business owner. One day, everything works and the customers are happy. The next day something is changing and you have to adapt the technology, rethink everything, look for other ways. Perseverance and consistency are the hallmarks of most entrepreneurs. If you have a vision and want to drive it forward, you can never go in a straight line.

THOMAS F. HOFMANN: Yes, frustration tolerance is a very important quality for successful talents in science and entrepreneurship. The easy paths have usually already been worn out by others; true pioneers, on the other hand, venture into unmapped territory with all its ups and downs. Success and innovation happen when we are willing to give new ideas a chance and keep experimenting with alternative approaches, even if many of them may not work right away. In addition to technical expertise and creativity, true inventors, explorers and innovators therefore need a healthy dose of frustration tolerance, and instead of being afraid to fail, they are able to learn from their mistakes.

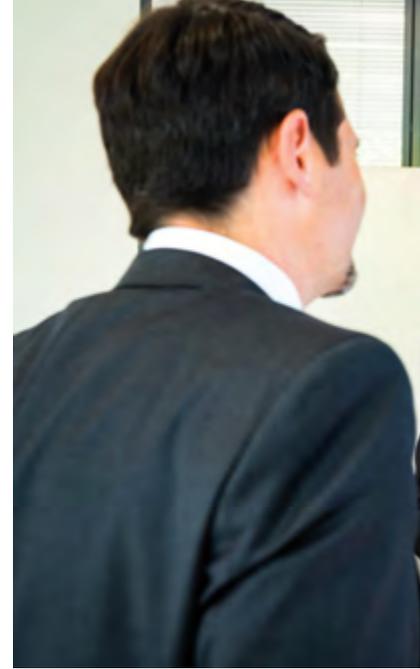
The story of the innovation on which Celonis is built starts at the TUM University Library: While searching for a solution for your study project, you came across a book by Dutch professor Wil van der Aalst, which led to your first encounter with the ideas of Process Mining (see box) and Workflow Management.

NOMINACHER: When we stumbled upon these groundbreaking ideas, we were able to make a crucial connection. We recognized the connection between the process data we were examining as part of our study project for Bayerischer Rundfunk and the possibility of solving it by developing our own process mining software. In other words, without Wil's research, Celonis would probably not exist in its current form.

What was the decisive factor that made you recognize this high-potential connection in that moment?

NOMINACHER: I am sure that our education was a major factor here. Our studies provided us with a broad knowledge base from which we could move forward. I believe that good knowledge of the field you are moving in is important in order to come up with good and fresh ideas. The creative part on our behalf was recognizing that the transfer between the theoretical algorithms of Process Mining and the data of Bayerischer Rundfunk was possible. To this day, we are continually establishing new connections between academic research and practical application and are continuously developing our product.

HOFMANN: I can only second that. Really good ideas and high-potential approaches rarely fall from the sky. Increasingly, they materialize at the interfaces of disciplines through the interplay of differing knowledge, tools and working methods, especially when the "chemistry" between the team members is right.



Due to its significant growth, Celonis is always on the lookout for new talent. Therefore, the company is putting a lot of effort into appealing specifically to young professionals: An in-house studio is used for recording podcasts. On several roof-top terraces and in so-called “playrooms”, employees can take a break from their desks.

You are three founders in the founding team. How do you go about exchanging ideas in the brainstorming phase?

NOMINACHER: Our team is very complementary. Alexander Rinke is a mathematician, Martin Klenk is a computer scientist and I am a combination of finance computer scientist and business computer scientist. For us, it is important that everyone brings in their different perspectives. On the one hand, we are different in terms of our academic backgrounds, but also in terms of what we have experienced, what professional experience we bring to the table. Especially in the beginning, when it was just the three of us, it wouldn't have worked otherwise. I still remember the first three months, when we virtually locked ourselves into my apartment. Every day brought new challenges. Sometimes we almost despaired. But one of us always had the idea that saved the day.

How do you prepare young entrepreneurs to cope with these ups and downs and stick with an idea in the face of adversity?

HOFMANN: Our start-up-oriented students are already highly motivated when they come to us. They are eager to learn, to create something new and to bring innovations to business and society. In doing so, they make every effort to find solutions to the problems they face. However, their motivation quickly diminishes if they are thwarted by disciplinary silo thinking, red tape or unnecessary legal overregulation. Universities need to be “enablers.” They have to help stu-

dents follow their visions and motivations, overcome outdated divides between disciplines, develop creative collaborative formats and create the best conditions for young talents to turn their ideas into marketable innovations.

NOMINACHER: The network plays a big role. It was good that we had many mentors at TUM with whom we could exchange ideas when we experienced setbacks or when we were facing new challenges.

Process Mining

Celonis is the world market leader in Process Mining, which analyzes the business processes of companies. Behind everything a company does, there is a process: buying, selling, paying, collecting, shipping and much more. If these processes are more efficient, the company usually also operates more efficiently and effectively. Process mining can be used to take an “X-ray” of a business process, which helps to make workflows more transparent and to identify areas that are inefficient. This is done by using data that is usually already being collected in the company.



Celonis is the world market leader in what is known as Process Mining and is now expanding globally with its software. Bastian Nominacher explains to the president how it works.



HOFMANN: The foundation here is to promote top-level science, because outstanding research constantly spawns new approaches for ingenious founders. Then we have to powerfully support the young talents throughout the entire start-up process all the way up to the growth phase, which we do very systematically and with great passion together with UnternehmerTUM, our affiliated Center for Business Creation and Innovation. With our spin-offs, we promote the transfer of technologies or services from our laboratories, think tanks and workshops into commercially or socially relevant applications.

BASTIAN NOMINACHER: Due to TUM's start-up support, we have a very strong ecosystem here in Munich. You can learn from other founders and exchange ideas. You don't have to make every mistake that someone else has already made. And at university, we learn how to tackle a problem.

What do you mean by that?

NOMINACHER: A university with a very high performance level, like TUM, primes you well for handling intricate problems. Whether it's a complex mathematical problem or the question of how I, as a founder, can attract new customers, is of secondary importance. It's about analytically working through a situation and breaking it down into individual parts. That's why we place great value on applicant's ability to persevere and knowing the tools of their trade.

HOFMANN: Methodological competencies are at the heart of the training. These are a constant that you can fall back on throughout your entire life. Detailed technical knowledge changes, becomes obsolete and is permanently updated – in times of technological leap innovations within just a few years. However, anyone who has learned to think analytically and to work methodically can apply this effectively for a lifetime. This applies to a top scientist just as much as to a board member or an entrepreneur.



For a long time, the company did not find investors who believed in the idea of the three founders. So the TUM Alumni set up their company without any external help. Today, Celonis is the most valuable start-up in Germany.

What do you do when you are faced with a problem that you can't solve?

HOFMANN: Comparing notes with others. For me, this is the most effective way. Good questions and new perspectives from other people often help me to take a step or two back in my own thinking and to look at the problem from a different angle. Staying on track towards the goal while exploring different ways of solving the problem – this often opens up completely new possibilities for action that were not apparent to you before.

NOMINACHER: I like exchanging ideas with other entrepreneurs or with my network. Just last weekend, we were thinking about how to break into a new market and were a little stuck. We talked to someone on our advisory board and came away with a new perspective. In the end, I thought to myself: You could have thought of that yourself (laughs).

Since its last financing round, Celonis is now worth more than \$10 billion, making it what is called a decacorn (see box). What are Celonis' further steps in its development?

NOMINACHER: It is important for me to emphasize that our goal was not to become a decacorn, but that we have a mission. We have developed a technology that enables us to improve every process in the world. We use it to help companies help their customers. The investment rounds

are just there to help us on that journey. Last year, we launched the sixth generation of our software – called the Execution Management System. There is enormous demand for it from companies. That's why we need to invest even more in both the technology and the customer service. So far, we have tapped less than one percent of the available market. So there is still a lot of potential.

HOFMANN: Many young entrepreneurs think about selling their company too early. Have you ever thought about selling your shares in the company?

NOMINACHER: No. We have no plans of selling. Personally, I am driven by the fact that here at Celonis we have the opportunity to create one of the largest and most important technology companies in the world. It's exciting, we enjoy it, and that's why we're still passionate about it.

HOFMANN: That's a great attitude and should be a model for others. This is exactly the kind of attitude that Germany as a business location needs, because this is how companies are created that are, of course, globally active, but create new jobs here in Germany and maintain the country's export strength.



The best ideas are born from an exchange with other people: President Thomas F. Hofmann and Co-CEO Bastian Nominacher see eye to eye on this point.

NOMINACHER: It is said that approximately one in 100,000 start-ups becomes a unicorn. That also means that the other 99,999 will not. People often ask us why we are so successful. I think the reason is our passion for the cause. Just aiming for a lucrative sale is probably not a good reason to start a company.

HOFMANN: If you have developed a groundbreaking technology, the greatest motivation for you surely has to be to see the company grow and prosper. By the way, this also applies to my work as president: I do everything I can to make TUM even more successful. Success can't always be measured in just numbers, publications, patents or start-ups. It is equally important to me that the university is not an isolated ivory tower of excellence, but becomes an integral partner of society, moves with the times and acts as a catalyst for responsible, trustworthy and socially viable innovations. Only then can we prevent science from becoming disconnected from the needs and values of our society. That's what motivates me in my role as president. If that were not the case, I would probably not do it at all.

“Success and innovation happen when we make room for the new.”

Unicorn and Decacorn

Start-ups valued at one billion US dollars or more are called “unicorns”. Worldwide, there are a few hundred of these. Much rarer are those unicorns that exceed the magic threshold of ten billion when they get valued. These are called “decacorns”. The term is made up of the words “deca” (Latin for “ten”) and “unicorn”.

Following a new round of investment in mid-2021, Celonis became Germany's first decacorn. Among the start-ups founded by TUM Alumni, there are also several unicorns. Read their stories here: www.community.tum.de/en/unicorn

The Story of an Idea That Took Off

HOW THREE YOUNG TUM CREATED THE COMPANY CELONIS



In addition to the location in Munich, Celonis operates numerous other offices around the world. Another headquarters is located in New York. The picture shows the offices in the One World Trade Center, the sixth tallest building in the world.

In November 2019, Celonis was awarded the Deutscher Zukunftspreis by German President Frank-Walter Steinmeier.



Every year, TUM brings forth around 80 spin-offs and supports its founders in a variety of ways. The history of Celonis shows how a start-up can become a highly successful company.

Bastian Nominacher (Master Finance and Information Management 2011), Martin Klenk (Bachelor Informatics 2010) and Alexander Rinke (Bachelor Mathematics 2010) ended up with their own company almost by accident: While studying at TUM, the three founders got involved with a student consultancy. As part of a project, they were supposed to improve the IT service for Bayerischer Rundfunk, but with traditional methods this turned out to be extremely difficult. While searching for a solution to the problem, the founders came across a theoretical paper on Process Mining, which laid the foundation for their business.

A Valuable Treasure
“We noticed that Bayerischer Rundfunk’s IT system automatically stored process data – a continually growing treasure trove of valuable data,” says Bastian Nominacher. “We realised quickly that there was immense value here and that we had to get to the bottom of it.” Based on the publications of Dutch professor Wil van der Aalst, the three developed

their own software. This software enabled them to reduce the IT service process at Bayerischer Rundfunk from five days to just one day. After completing this project, Bayerischer Rundfunk recommended the team to Siemens. This marked the beginning and in June 2011, Bastian Nominacher, Alexander Rinke and Martin Klenk established Celonis. “First the three of us worked in my apartment and, over time, we gained more and more customers,” says Nominacher. Because we had major corporations on board early on, we were able to get by completely without external investment for the first five years – which is very unusual for a start-up,” the TUM Alumni adds.

In 2015, Celonis was already the fastest-growing technology company in Germany, and a year later it opened its branch office in New York. Meanwhile, almost half of the DAX companies are using the technology. This makes Celonis the world market leader for Process Mining (see box). With this technology, companies are able to analyze their entire range of digital business processes and identify quickly whether there are any problems in the processes and if so, where they are. An execution management system based on Process Mining technology helps to control business processes in a data-based and smart way and to improve the performance of companies. “We have created a completely new category of software and are seeing a huge demand for this technology in the market,” Bastian Nominacher says. “Our process mining solution works sort of like an X-ray machine that points out and diagnoses where in the company things are not running smoothly. The added value we can generate for our customers is what makes our work so incredibly exciting and thrilling.”

Not Afraid to Start-up

Even though all three founders were in high demand on the job market with their degrees from TUM, they decided to launch their own company. None of the three had originally intended to leave university having set up a business. “We simply had the right ingredients to start-up,” says Bastian Nominacher. For him, these include the right idea, the matching market, a great team and the right timing. “If we had set out five years earlier, for example, the processing power to implement our idea wouldn’t have been available yet.”

Another important player

the founding process was TUM. In addition to TUM’s startup consulting, the Chairs of Information Systems, Industrial Design and Entrepreneurship helped develop the business model and a corporate identity. “Whether it was the software architecture or a complex financial model – we were always able to draw on the university’s know-how. Since we didn’t have any professional experience yet when we established the company, this is incredibly important to us,” says Bastian Nominacher.

Talent as a Key to Success

To this day, the contact is close. Around one quarter of the 650 employees at the Munich site are TUM graduates: “The fact that we have our office in Munich on Theresienstrasse is no coincidence,” Bastian Nominacher says. The proximity to TUM is indeed an important location factor.

“We are catering to an almost unlimited market, there is a huge demand and we need well-trained talent.” Celonis receives more than 20,000 applications per quarter, but only a few are ultimately chosen. “We are very

selective, but TUM provides us with a very good local talent pool.”

Celonis has headquarters in Munich and New York and maintains 15 offices around the world. The company has several locations in the USA, where it generates around half of its revenue. The leap across the Atlantic, which some considered bold, did not scare the young entrepreneurs. “We were convinced that U.S. companies have the same business challenges with regard to process optimization,” says Bastian Nominacher. Moreover, Celonis had prepared the move well by bringing investors on board for the first time since its launch five years ago, who also had experience with internationalization.

And for the future, further growth is in the cards. “I can well imagine Celonis being a company with over ten thousand employees in a few years,” Bastian Nominacher says. After all, the company is the market leader in its field and is meeting huge global demand. The founders do not rule out an IPO, but selling the company is not an option. “We have a bold vision, but we are in it lock, stock and barrel,” Bastian Nominacher emphasizes.

Read more success stories about entrepreneurs from the TUM Community at: www.community.tum.de/en/alumni-start-ups

Entrepreneurship at TUM

TUM SUPPORTS ITS ENTREPRENEURS

Around 80 technology-based companies are launched at TUM every year. TUM and UnternehmerTUM, the Center for Innovation and Business Creation, support start-ups with programs that are precisely tailored to the individual phases of the start-up process – from the conception of a business model to management training, from market entry to a possible IPO. The TUM Venture Labs offer start-up teams from the various scientific fields an entire ecosystem with direct links to research.

Up to 30 teams can use offices in the TUM Incubator to prepare for the launch of their company. UnternehmerTUM invests in promising technology companies with its own venture capital fund and offers a 1,500-square-meter high-tech workshop for prototyping and a biotechnology lab in the form of the Maker Space and Bio.Kitchen. According to “Gründungsradar,” this support is the best offered by any of Germany’s major universities.

For a Perfect Start

TUM has set itself the goal of being one of the most successful start-up universities in Europe. For this reason, it offers a wide range of start-up consulting, research and qualification services, as well as a strong network for young entrepreneurs.

www.tum.de/en/entrepreneurship

START-UP CONSULTING

TUM supports students, alumni and scientists who want to start a business with their idea or technology – in all phases of the company’s development: from the development of the concept and business model to advice on suitable funding and the actual start-up launch and market entry.

www.tum.de/en/innovation/entrepreneurship/for-founders-start-ups/consulting-mentoring

START-UP MENTORING

TUM’s Start-up Mentoring supports start-ups in the market entry phase. Entrepreneurs can benefit from the many years of experience of senior entrepreneurs. As a TUM Alumni, you can share your own experience with young entrepreneurs and thus become part of a new success story.

www.tum.de/en/innovation/entrepreneurship/for-founders-start-ups/consulting-mentoring

START-UPS A TO Z

The diversity of spin-offs from TUM is reflected in the Founders Gallery. Here you will find short profiles of both recently and well established spin-offs from TUM. The majority of these companies were founded by TUM Alumni, such as Celonis, Lili-um and Personio, which are already highly successful.

www.tum.de/en/innovation/entrepreneurship/for-alumni-corporates/companies-founded-a-z



For TUM President Thomas F. Hofmann, it is an important concern that start-ups at TUM receive support from the very first idea onwards.

Experiencing Entrepreneurs Live

MEET & TALK

on 03.11.2021 with Michael Wax

The company Forto is another German unicorn and cracked the billion-dollar mark in June this year. Forto's co-founder and CEO is TUM Alumni Michael Wax (Master Industrial Engineering 2015). He is leading the Forto team and is responsible for the strategic direction of the company. He is passionate about innovation in global trade and e-commerce and is a frequent speaker at conferences and in the media on topics related to the future of Logistics. The Munich native is a passionate cyclist, an enthusiastic investor and a strong advocate for political commitment.

In the event series "TUM Start-ups: Meet & Talk" by TUM Mentoring and TUM Entrepreneurship, TUM Alumni will offer a look behind the scenes. Together with the entrepreneurs, you can talk about experiences, stumbling blocks and possible first steps in setting up a company.

www.community.tum.de/en/events

IdeAward

IDEAS THAT INSPIRE

25th November 2021

Every year on the last Thursday in November, TUM and UnternehmerTUM organize the annual ideas competition TUM IdeAward. On this day, ten start-up teams present their exciting and innovative ideas to the public. They have been pre-selected from countless submissions by a jury of experts and have made it to the final round of ten finalists. In the end, the three most promising start-up ideas from the field of Science, that are expected to have great market potential, will be awarded and thus have the chance to receive a total of 37,500 euros in prize money. In addition to exciting pitches of ideas, the annual program includes keynote speakers, a start-up Q&A session and an awards ceremony.

www.tum.de/en/innovation/entrepreneurship/news-events/tum-ideaward



TUM Alumna Laura Schütz (Master Industrial Design 2020) won first prize in 2020 for the company Stella Medical.



How do we Work Creatively as a Team?

Many things are easier when you work together as a team, and this is often where the truly good ideas are born. On the following pages, TUM Ambassador Maya Schuldiner gives tips on how to work creatively in a team. You will also learn how you can use the TUM Community to become even more successful.

Five Tips

by Maya Schuldiner

for Creative Teamwork

1 Reduce Hierarchy

To truly be creative, team members should feel safe to express their opinions and ideas even if they might be wrong or uninteresting. One way to do that is to create a team where people respect and trust each other without feeling that some are superior or inferior. I try to create an environment where my team feel comfortable to challenge me and tell me that I am wrong – this leads to independent thinking and creativity to emerge.

2 Make Protected Time to Talk

Unlike the common concept that creativity means that you have “light-bulb” moments where the “truth” is revealed to you in a sudden flash of realization – in my eyes creativity is a result of a back-and-forth process of deliberation and communication. With an open mind and time to chat, a mediocre idea can turn into an amazing one, as each person brings another piece of the puzzle into light. For this to happen, time is required. I make sure to have at least one hour of protected time every two weeks to chat with each of my lab members.

3 Ensure a Good Work-Life Balance

To enable creativity to flourish, peoples mind should be clean of anxiety and stress. One great way to do that is to ensure that lab members enjoy a good work/life balance. Taking time off each week to do sports, meet with friends and enjoy hobbies is a great way to ensure that people are at their best when in the lab. Going on a long vacation and “shutting out’ work is a great way to let your brain rest and come back rejuvenated and full of exciting new thoughts and ideas. I encourage all my team to take good care of themselves.

4 Do Crazy Things

Team members should be able to express their creativity in multiple aspects of their day and not only on the bench. This is why in our lab we try to be creative in many events around the year and practice this skill. For example, we create a unique, hand-made, gift for each lab member and invent costumes for the yearly departments costume competition.

5 Rejoice in Success

Being a scientist is a tough job. Most of the time we fail and have to deal with negative feedback on a daily basis. Our ideas, even the great ones, are usually wrong. A good way to cope with these negative moments is to give more importance to success. We should dwell on our achievements, enjoy them, and allow them to replenish our internal batteries of scientific passion. That’s why I make it a point to rejoice when something goes well – we celebrate the submission of a paper, for example, not just its approval.

From a young age, Maya Schuldiner had a fascination for living beings. As a child, she spent hours in the hills near her parents' home collecting flowers, insects and small animals.

It was these experiences that inspired her to study Biology as an undergraduate. In 1998, she graduated from Hebrew University in Jerusalem, Israel, with a Bachelor's degree in Biology. In 1999, she added a Master's degree from the Department of Genetics. In 2003, she received her Doctorate in Genetics. For her postdoctoral studies, she went to the University of California in San Francisco, USA. Since 2008, she has been conducting research at the Department of Molecular Genetics at the Weizmann Institute of Science in Rehovot, Israel. Since 2019, she has held the Dr. Gilbert Omenn and Martha Darling Chair in Molecular Genetics. As a mentor and advocate for gender equality, she is tirelessly committed to supporting young researchers.

From 2017 to 2018, Maya Schuldiner was a Hans Fischer Senior Fellow at TUM IAS. In 2020, TUM President Prof. Dr. Thomas Hofmann awarded her the honorary title of TUM Ambassador. Maya Schuldiner is an editor of numerous science magazines and a member of all the major scientific associations in her field. Most recently, she was elected a member of the Leopoldina National Academy of Sciences. The scientist has received several awards. In 2014, the renowned Biology journal Cell named her one of the forty most promising young scientists in the world ("40 Under 40"). When Maya Schuldiner is not in the lab with her "second family," she enjoys baking, reading, playing the piano, scuba diving, and hiking in the desert with her husband and three sons.

www.community.tum.de/en/maya-schuldiner

Prof. Dr. **Maya Schuldiner**

TUM Ambassador 2020



To create a balance, Maya Schuldiner is also planning numerous creative activities with her lab team: In summer 2021, they designed cement pots for succulents.

Successful TUM Community together!

We achieve more when we work in a team: When we brainstorm, we stimulate each other to come up with creative ideas and learn from the experiences of others. This is the principle that TUM Mentoring is based on. Experienced mentors share their expertise with young students, give advice and feedback, but also benefit from the exchange themselves. In return, the mentees inspire them with their questions and ideas. Whatever question is on your mind, wherever you are in the world:

The TUM Community is your team. Give it a try!

www.community.tum.de

Meetup

for TUM Entrepreneurs

Entrepreneur Vincent Hommel is actively involved in the Mentoring Network. In the Meetup, he is bringing together aspiring and experienced entrepreneurs in order to meet online, exchange best practices, discuss and collaborate. The meetings always take place on the last Wednesday of the month.

go.tum.de/797573

Get-Together

for alumni and students in Greater Stuttgart

Initiated by mentors Dr. Viktoria Leonhard and Kai Olaf-Dammenhain, the TUM Community in the greater Stuttgart area meet at regular intervals, both online and in-person, to discuss different topics and share experiences. The current dates can be found here:

go.tum.de/797573

TUM Mentoring Lectures

Creatively Navigating Conflicts

8th of December

with Marion Kaiser

Successful communication frees up a lot of your time, resolves conflicts more quickly or prevents them from arising in the first place. Creative use of communication leads to more clarity, also with regard to one's own needs. In her lecture, TUM Alumna Marion Kaiser (Diploma Aerospace Engineering 1992) demonstrates how this can be achieved: The TUM mentor and coach gives insights into Nonviolent Communication according to Dr. M. Rosenberg. She explains how interpersonal connections can be improved by addressing problems with honesty and by listening empathetically.

www.community.tum.de/en/events

(Mentally) Prepared for Retirement

26th of January

with Franz Kapsner

When moving from a professional career into retirement, the challenges are manifold and often associated with numerous unanswered questions. Retirement directly involves personal, social, but also financial aspects. In order to be able to fully enjoy this new stage of life, a number of precautions should therefore be taken. In his lecture, TUM Mentor Franz Kapsner (Diploma Mathematics 1977) will share ways to find new inspiration for everyday life and explain specific aspects of structuring the future. He will show ways to identify skills, inclinations and abilities and how to act on them. He will guide you in finding answers to questions such as: "What have I achieved? What am I good at? What is important to me? What am I going to tackle now?"

TUM Mentoring Stammtisch

Look forward to interesting conversations and a relaxed dialogue in the Mentoring Network. The current dates can be found at:

go.tum.de/797573

TUM MENTORING DISCUSSION

What Kind of Future do we Want to Live in?

9th of November with Wolfgang Höhl

Climate protection and social justice are essential goals of sustainable architecture and urban planning. They offer the prerequisite for active and participatory urban planning and land policy, away from a growth-driven and purely market-based economy. But how simple or complex are the ideas and solutions for sustainable cities? How can a sustainably livable urban structure be created in the context of economic interests, social change, digitalization and "New Work"? Is vital urbanity already emerging through new means of transport and smart digital control? These and many other questions will be discussed with Wolfgang Höhl and further TUM Alumni.

You Too Can Contribute Your Ideas!

You would like to be actively involved in the Mentoring Network? Would you like to become a mentor, set up a theme-based or regional group, share your experience as a keynote speaker, or promote exchange in some other way? Please get in touch with us.

mentoring@tum.de



Learning From Each Other

Career Events at TUM

In high demand all around the world! This is what people say about graduates who received their professional qualifications from TUM and have become compelling ambassadors for our university both at home and abroad. The current Global University Employability Ranking also confirms that of all German universities, TUM has the best quality of education. www.community.tum.de/en/career

Adventure Management

Advice From Colleagues

Executives from the TUM Community share their experiences and discuss their current issues with each other. Join us and learn from the experience of other TUM Alumni.

Dates: Thu. 04.11.2021, 09.12.2021, 21.01.2022, 17.03.2022, 6:15 pm – 8 pm

Webinars

Employment Contract and Reference

25TH OF NOVEMBER 2021

PERFECT SELF-PRESENTATION

9TH OF DECEMBER 2021

Career Changes

1ST OF FEBRUARY 2022

XING & LinkedIn

2ND OF FEBRUARY 2022

Online Career Days

Career Day on the 11th of November 2021

Q&A Job Search

Webinar *Career Planning*

Applications Check-up live

Speed Dating With Companies

Career Lounge: *Careers in Aerospace*

Career Day on the 27th of January 2022

Q&A Job Interview

Webinar *What is Expected From Young Professionals*

Applications Check-up live

Speed Dating With Companies

Career Lounge:

Start-up, Medium-sized Company or Large Corporation?

More than 70 additional webinars and career-related services can be found at www.community.tum.de/en/events



With great foresight and a feel for future trends in technology, Dr. Reinhard Ploss is the man at the helm of chip manufacturer Infineon. The courage to make decisions resulted from his time as a student at TUM.

Learning from Leaders

on the 9th of November 2021

with Reinhard Ploss

TUM Alumni Reinhard Ploss is the Handelsblatt's Manager of the Year 2020. In this panel discussion, he will, among other topics, talk about the importance of lifelong learning and why technology is relevant for managers and corporate development.

The "Learning from Leaders" event series is hosted by the TUM Institute for LifeLong Learning. Prof. Dr. Claudia Peus, Vice President for Talent Management & Diversity at TUM, is also taking part and will present the latest research findings on the topic of Learning and Leadership.

learningfestival.ill.tum.de/events

Reinhard Ploss' success story in its entirety:
www.community.tum.de/en/reinhard-ploss

A I



Because an apple fell on his head, Isaac Newton discovered the Law of Gravity. At least that's how legend has it. But how do the scientific innovations that rock the world actually come about?

EFFECT

**We asked three
TUM Nobel Prize laureates
how important creativity
is for their work.**

3 Questions for Wolfgang Ketterle

NOBEL PRIZE IN PHYSICS 2001

You received the Nobel Prize for the achievement of Bose-Einstein condensation, which you had been doing research on for years: Was there a flash of genius that led to this discovery?

Discoveries in the lab are often sudden – here you have that moment you never forget. The idea to do these experiments was more of a process. Based on knowledge and experience I had accumulated over many years, several steps made it clearer and clearer that these experiments could be successful. Many new ideas are the combination of existing knowledge applied in a new way. In retrospect, a step may seem totally obvious, but many colleagues simply did not come to this conclusion. I am of the opinion that in the majority of cases the brilliant idea does not come suddenly like a flash of genius, but originates from profound expertise.

Then how would you define creativity?

Creativity is a process and is based on hard work. Creativity entails rolling up your sleeves, either delving into literature, solving equations, working with doctoral students, or in the lab, and suddenly, because you are so deeply immersed in it, you become aware of a connection that you hadn't seen before. Hence, creativity requires acquiring knowledge, but then analyzing the knowledge in such a way that you have a matrix that is ready for new connections. The leap of creativity therefore often looks bigger from the outside than it feels to the scientist him or herself, having already had all these indicators in mind and having gone through all the steps of development.

Often the sudden wow-effect is the outside perspective. We need expressions of creativity every day because we constantly have to solve and understand new problems or find out why a new experiment is not working.

How often does it happen that you cannot solve a problem?

Again and again, I am working with my groups on ideas that we expect will work. But nature is not always cooperative (laughs). That's why there are always setbacks. Frustration is part of the business. That is an important learning process for the students. I then say: We have to pursue ten good ideas

and if one of them works in the end, we are in business, then we have great success. Having perseverance and knowing that you can do it in the end is a very important attitude. Therefore, being creative doesn't mean having the idea of a lifetime once. The people who are considered creative have probably had ten times more ideas than can be seen from the outside.

Prof. Dr. Wolfgang Ketterle
(Diploma Physics 1982)

Wolfgang Ketterle was born in 1957 as the second of three children and grew up in Eppelheim. After graduating from high school, he began studying Physics at Heidelberg University in 1976. Following his pre-diploma (Vordiplom), he transferred to TUM. He pursued Theoretical Physics and graduated in 1982 with a thesis on pin relaxation in disordered systems. He subsequently joined the Max Planck Institute of Quantum Optics in Garching and Ludwig-Maximilians-Universität in Munich where he obtained his Doctorate in 1986 with a thesis on spectroscopy of helium hydride and triatomic hydrogen.

Following his time in Garching, Ketterle moved back to Heidelberg to conduct research on combustion engines at Jürgen Wolfrum's chair. In 1990, he moved to the United States to work on issues related to laser cooling in the group led by David E. Pritchard. In 1993, he joined the Physics Department of the Massachusetts Institute of Technology (MIT) and today holds the John D. MacArthur Chair in Physics.

Together with Eric A. Cornell and Carl E. Wieman, Wolfgang Ketterle received the Nobel Prize in Physics in 2001 for the achievement of Bose-Einstein condensation in dilute gases of alkali atoms, and for early fundamental studies of the properties of the condensates.





Wolfgang Ketterle is looking through the coil of a magnetic trap that he and his team used to achieve Bose-Einstein condensation.



Nobel Prize laureate Robert Huber in his office at the Max Planck Institute of Biochemistry, Martinsried. In the background, a Wolpertinger is flying across the room. The German pioneer of Biochemistry Nobert Hilschmann made this one – and several others – after he retired and then bequeathed it to Robert Huber after his death.

3 Questions for Robert Huber

NOBEL PRIZE IN CHEMISTRY 1988

Prof. Dr. Robert Huber
(Diploma Chemistry 1960 |
Doctorate 1963 | Habilitation 1968)

Robert Huber graduated from Humanistisches Karlsgymnasium in Munich-Pasing in 1956. He then studied Chemistry at TUM and turned to Crystallography and determining the structure of organic molecules in his diploma and doctoral theses under Walter Hoppe at the Max Planck Institute for Protein and Leather Research. Subsequently, he solved in particular the question of the atomic structure of the insect metamorphosis hormone ecdysone, which sparked his interest in biologically relevant macromolecules and the development of crystallographic methods. In 1967, Huber set about the structural elucidation of the oxygen-binding insect protein erythrocyruorin as part of his habilitation with Hoppe, proving, among other things, its resemblance to the mammalian globins. In 1971, Robert Huber became Director of the Department of Structural Research at the newly founded Max Planck Institute of Biochemistry in Martinsried near Munich. In 1976, he was appointed Professor of Chemistry at TUM. He is the co-founder of two biotech companies based in Martinsried, which offer services for drug research and development in medicine (Proteros, 1997) and for the treatment of autoimmune diseases (Suppremol, 2005). Robert Huber has been Professor Emeritus since 2005. In 2013, Professor Dr. Robert Huber was welcomed into the circle of TUM Emeriti of Excellence by TUM President Prof. Dr. Wolfgang A. Herrmann.

In 1988 he received the Nobel Prize in Chemistry together with his former doctoral student TUM Alumni Johann Deisenhofer and with Hartmut Michel for his major contributions to X-ray crystallographic analysis and elucidation of the spatial structure of the intermembrane response center of photosynthesis, the biological photocell.

Where do you see the connection between creativity and science?

The Latin origin of the word creativity is “creare”, meaning to create something. In my case and in other subjects, however, we do not create anything, but explore something that already exists. We look at molecules, try to figure out their structure, but nature created them. We have found new methods to see even more clearly what nature has produced. Astronomy, for example, with its fantastic images of stars and galaxies – infinitely far away. Or X-ray Crystallography, which shows us protein molecules. These many methods, which gave us new vision, are testimonies to our creativity. I was awarded my Nobel Prize together with Johann Deisenhofer and Hartmut Michel for a new way of seeing membrane-bound proteins.

What was the journey to that point like for you? Was there a pivotal moment of breakthrough in your research that you can recall?

During my Doctorate, two famous Biochemists asked me if I wanted to help study a newly discovered insect hormone. My first task was to determine the molecular weight. However, my result using X-ray Crystallography was twice as high as what had been previously found. Therefore, I repeated my experiment multiple times. Suddenly it hit me like a lightning bolt: I was right. This discovery was a key experience – I was able to discover something that contradicted common knowledge. That moment was what prompted me to pursue an academic career in the first place. Later, there have been a few more lightning bolts (laughs).

How important was the exchange with other scientists in this process?

Soon after my call to the Max Planck Institute of Biochemistry, we set up the research group. The group comprised Chemists, Physicists and Biologists. We were the most productive group in the world and very well respected everywhere. Many of the projects we tackled were the result of discussions among ourselves and with other colleagues. I would go so far as to say that none of my many publications would have been possible without the collaboration with colleagues.



3 Questions for Joachim Frank

NOBEL PRIZE IN CHEMISTRY 2017

Prof. Dr. Joachim Frank
(Doctorate Physics 1970)

Joachim Frank was born in Weidenau, today a part of Siegen. After completing his pre-diploma (Vordiplom) in Freiburg, he graduated in Physics from Ludwig-Maximilians-Universität München. In 1970, Joachim Frank earned his Doctorate under the supervision of the pioneer of the electronic microscope Professor Walter Hoppe at TUM with a thesis on high-resolution electron micrographs using image difference and reconstruction methods. As a postdoctoral fellow, he worked at the California Institute of Technology, the University of California, Berkeley, and Cornell University. From 1972, Frank was a research assistant at the Max Planck Institute for Biochemistry, and from 1973, head of a research group at the University of Cambridge. Since 1975, Frank has been at the Wadsworth Center, New York State Department of Health (University at Albany, The State University of New York). Since 1997, Frank has also held a research professorship in Cell Biology at the New York University and since 2008 the professorship in Biochemistry, Molecular Biophysics and Biological Sciences at Columbia University. In 2019, Joachim Frank was appointed TUM Distinguished Affiliated Professor.

Joachim Frank received the 2017 Nobel Prize in Chemistry together with Jacques Dubochet and Richard Henderson for pioneering work on the development of cryo-electron microscopy. This process, in which samples are cooled using liquid nitrogen, makes it possible to determine the three-dimensional shape of proteins under the electron microscope and decipher their structure.

How do creative approaches play a role in your scientific research?

They are essential. Much of my work has focused on the development of new methods, and when faced with a problem I always find it necessary to look for possible answers in other areas of science, engineering or math. Thinking in metaphors is one of the strengths in a scientist. In Germany Goethe stands out as a man with a large quiver of metaphors, which he employed in both his literary work and in his scientific explorations.

What do you do when you just can't get ahead in solving a problem?

I turn my attention to something else. That might be another scientific project, or an administrative action I have long postponed, or a grant proposal I have been working on and off. My experience is that associations and stimulations generated in a different area will help in finding a different angle of attack in the project that is stuck. In fact, the attempts to find a solution have their own subconscious life inside of my brain, and probably go on day and night.

Apart from Science, your second passion is creative writing:

What does writing mean to you?

I started writing when I was in high school. I was a founding member on the editorial board of the high school journal *Strebergarten* in my gymnasium. Over the years I wrote German poems and short pieces of flash fiction influenced by the DADA movement. I started writing in English after I moved to the USA, and attended fiction writing classes. Writing is an outlet for free-form creativity that is not constrained by rules of logical reasoning. Without it I would feel incomplete and unfulfilled as a person. My scientific progress would not have happened without these intermittent "vacations" from science.





Nobel Prize laureate Joachim Frank on a 2019 visit to TUM.

**You still want to know
more about the TUM Nobel
Prize laureates?**

Interviews with the
scientists are available at
www.community.tum.de/en/nobellaureates

63.8%

of TUM Alumni* say
CREATIVITY
is **very important**
to them.



Only 9.2% of our TUM Alumni* report that their creativity dries up when other people expect a lot. However, reassurance and appreciation from peers boosts their creativity (34.7%).

73.4 PERCENT OF
ALL TUM ALUMNI*
INITIALLY WRITE
DOWN AN IDEA ON
A PIECE OF PAPER.

This means that here, the analog method clearly takes precedence over using a cell phone (29.2%) or a computer (27.7%).

Dream a little dream...

The majority of TUM Alumni* have their best ideas in bed (12%) in the morning after waking up or shortly before going to bed. But sparks are also flying in nature (9%), in the shower (8%), on the move (7%), for example when jogging, cycling or swimming, and at the desk (5%).



We asked TUM Alumni* about their personal experience with

creati

Archimedes and his Bath

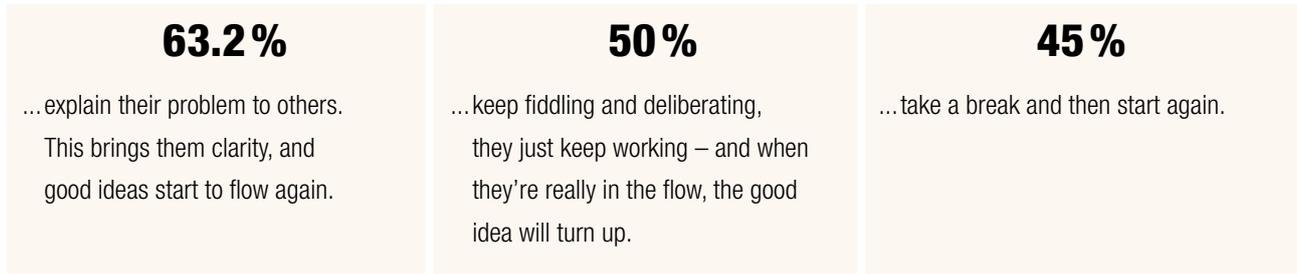
Archimedes' principle is considered the oldest Aha! moment. The King of Syracuse had set the Greek Mathematician Archimedes the task of finding out whether his crown was really made of pure gold – and to do so without damaging it. Archimedes pondered this question for days, but it wasn't until he got into the bathtub and saw water sloshing over the edge that he came up with the groundbreaking idea: The density of a body can be determined on the basis of the amount of water displaced.

"Eureka!" Archimedes yelled and allegedly ran naked through the streets out of sheer joy at his discovery. A famous Aha! moment in the bathtub.



When TUM Alumni* get stuck solving a problem, they ...

(multiple answers possible)



52.8% of TUM Alumni* are most creative when they can brainstorm together **as a team.**

39.3% need to be **alone and uninterrupted.**

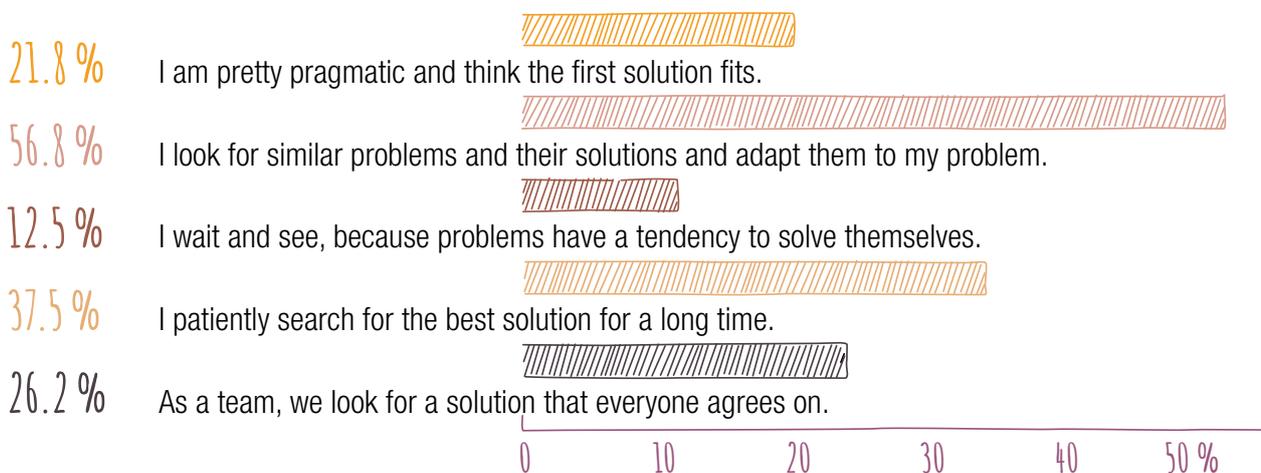
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Creativity and time constraints?



What's Your Creativity Type?

(multiple answers possible)



* The alumni poll on creativity was sent to all subscribers of the "Die TUM informiert" newsletter in August 2021. A total of 1,702 alumni participated in the survey. We would like to sincerely thank these respondents.

The Innovator and

Dr. Miriam Haerst

Diploma Mechanical Engineering 2011, Doctorate 2016

Still a student of Mechanical Engineering at TUM, Miriam Haerst gained her first experience in 3D printing while working for a manufacturer of hearing aids. During her Doctorate and work at the Chair of Medical Engineering at TUM, she focused on the processing of plastics for medical applications and the effects of a medical environment on plastics.

In a project seminar, she worked together with TUM Alumni Stefan Leonhardt, Stefan Fischer, Sebastian Pammer and Alexander Henhammer on a 3D printer for the high-performance polymer PEEK. After its first laboratory samples, it was clear that the group would keep at it for further development.

In 2017, Miriam Haerst co-founded the start-up Kumovis – with the help of TUM Start-up Consulting and an EXIST research transfer funding project from the German federal government. Kumovis currently has 25 employees, successfully completed its Series A financing round last year, and raised 3.6 million. This year, a subsidiary in the US was set up, Kumovis Inc.

Even as a schoolgirl, Miriam Haerst loved working with her hands and assisted her father in his hobby workshop. Her joy in experimenting and coming up with ideas has brought her a long way: from Diploma to Doctorate and finally to starting her own company. Her innovation is a 3D printer that can create individual bone implants from plastic.

In her school days, the main thing in Miriam Haerst's cupboard were arts and crafts books. And her affinity for scientific topics already showed in high school. To this day, what fascinates her most are the logical processes in the world. Her Diploma thesis at TUM was on silicone elastomers in the field of Plastics Processing. Here she stood at the injection molding machine herself, produced test specimens and then examined the results mechanically. Working at the machine, fiddling with components, designing tools and testing specimens, physically looking at the results – in all of this, Miriam Haerst was fully in her element, and in the process had the best ideas. "It's probably part of my personality that I can't get hung up on simulation down to the last detail, but that I have to move into trial and error fairly quickly," says the young Engineer. And yet, for a long time, she found it hard to imagine studying Natural Sciences – and especially pursuing a Doctorate. She thought it would be too theoretical and not practical enough. Nevertheless, a year before her high school graduation, she attended the Herbstuni at TUM. This is a program specifically for schoolgirls, offering various courses in which, for example, they can program a robot or build bridges and learn about mechanics, trusses and force transmission. Being able to jump directly into hands-on experience and test the application of

theoretical concepts appealed to Miriam Haerst and convinced her to enroll in Mechanical Engineering at TUM.

her Great Idea

BONES FROM A 3D PRINTER

Today, she is the CEO of her own company and, together with her fellow founders – all four of whom are also TUM Alumni – has developed a 3D printer that makes it possible to produce plastic implants and surgical aids with a custom fit. The 3D printer, called Kumovis R1, has roughly the dimensions of a large refrigerator and can generate heat of up to 250 degrees Celsius. Together with hospitals and manufacturers of medical devices, the start-up is producing implants from high-performance polymers by using the 3D printer to apply the material layer by layer. The implants can be used to replace skull and facial bones, but also printed intervertebral disc replacements are conceivable.



3D printing can be used to create bone implants for the skull and jaw, for example.



Meet The Innovator Herself!

Meet & Talk

on the 3rd of May 2022 with
Miriam Haerst

In the event series “TUM Start-ups: Meet & Talk” by TUM Mentoring and TUM Entrepreneurship, TUM Alumni provide a look behind the scenes. In a relaxed after-work atmosphere, you will gain insights into the early days and personal stories of TUM start-ups. Together with the entrepreneurs, you will be able to talk about experiences, pitfalls and possible first steps in the founding process.

www.community.tum.de/en/events

A genuine innovation on the market. “Compared to conventional methods, our process saves time and is relatively cheap,” Miriam Haerst says. Until now, individual implants, such as skull implants, have either had to be made by hand by the surgeon in the operating room or custom-milled in a medical technology company from a block of plastic. “The first method depends mainly on the skill of the surgeon, while the second method delivers high-quality results but often takes up to six weeks and is very expensive,” explains Miriam Haerst. With Kumovis’ technology, implants can be fitted within 48 hours. Printing could even take place directly on site at the hospital. Due to the lower costs, the likelihood that patients will receive custom-fit implants increases.

UNCONVENTIONAL THINKING

Talking about her time at TUM today, she emphasizes how much she enjoyed the free thinking at the Chair of Medical Engineering. “We were given the opportunity to think in all kinds of directions, to develop ideas and directly put them to the test,” she says. Even the foundations for the technology of her 3D printer were developed in a project seminar during her Doctorate.

During its development, the young engineer and her co-founders continually faced new challenges. A good example was the innovation surrounding the temperature management of the 3D printer: “In order to create a product that meets the mechanical requirements of a bone substitute, the implant must be printed in high heat. Until now, people have tried to achieve this effect by applying heat from the outside, for example, by using infrared radiators.” The founding team of Kumovis initially also took this approach, but had not arrived at a suitable solution.

Finally, the five founders came up with the idea of trying a circulating air flow – similar to an oven with circulating heat. This was a decisive leap forward in development, because it meant that the air could also be filtered at the same time. “We didn’t stick with the old and instead consciously decided on a new approach,” Miriam Haerst reports. For this path, she was honored as one of the best innovators under 35 in 2019. “To be truly creative and develop solutions for existing problems, you have to think unconventionally and outside the box,” she is convinced. Experimenting with new things together as a team is her preferred method for doing so. “I always make sure to give us freedom as a team to spin ideas and to experiment. You never know what you’ll discover in the end.”

WOMEN OF TUM

Giving Women a Platform

More and more women from around the world are getting involved in the Women of TUM Network and are taking advantage of the opportunities to empower each other. The Women of TUM offer female TUM students, scientists and alumnae a unique learning and networking experience in a non-competitive, inclusive community. Their goal is to connect women across generations, disciplines, hierarchical levels, and continents, to encourage them in their lifestyles, and to put their ideas into the spotlight.

www.community.tum.de/en/women

*Let Yourself
be Inspired!*

The Women of TUM Talks inspire, encourage and make role models visible.

This year, three female speakers offered ideas on the topic of Power, Strength & Energy and discussed personal and professional learnings.

The recording of the event will be available on the Women of TUM website on the 1st of November.

WOMEN OF TUM

Afterwork Event

New Digital Modes of Entrepreneurial Work

on the 10th of November
with **Katrin Hahn**

Dr. Katrin Hahn kicks off the Afterwork Event with an impulse talk. She will present her current research findings and explain how the Covid-19 pandemic has affected corporate collaborative relationships. Afterwards, participants will have the opportunity to ask questions, share personal experiences and network in a relaxed atmosphere.

Dr. Katrin Hahn holds a lecturing position (Akademische Rätin) at the Munich Center for Technology in Society (MCTS) at TUM. She studied Economics and received her Doctorate from the Chair of Economic and Industrial Sociology at TU Darmstadt in 2012.

www.community.tum.de/en/events

Women of TUM Task Force

As of last year, the Women of TUM Task Force has been in place to help approach female keynote speakers, organize and promote events, and raise the profile of Women of TUM around the world. A total of 30 teams take care of communication, events and cooperations. The meetings take place on a monthly basis.

Get involved at: womenoftum@tum.de

36%

OF ALL STUDENTS AT TUM
ARE WOMEN.



“Here we are breaking into the uncharted territory of Science. And we also take risks. In other words, we consciously accept that projects may fail from time to time, but at the same time we create the conditions for truly groundbreaking innovations.”

TUM President
Prof. Dr. Thomas F. Hofmann

NEW AT TUM TUM INNOVATION NETWORKS

In 2020, the three most innovative project ideas have been chosen from 32 applications. These are the first three TUM Innovation Networks.

In the TUM Innovation Networks, **7–10 top researchers** and young talents work closely together across disciplines to break into new areas of research and explore future hotspots of innovation at an early stage. TUM is funding each of these transdisciplinary initiatives for **4 years**. The total volume of each project is around **3 million euros**. The TUM Innovation Networks are a central component of the **Excellence Strategy TUM Agenda 2030**.

go.tum.de/902004

1_ ARTEMIS

Development of new materials based on machine learning

Creating sustainable energy storage solutions and at the same time producing novel materials for regenerative medicine: Both is possible when using the right supramolecular chemical compounds. The TUM Innovation Network for Artificial Intelligence powered Multi-functional Material Design (ARTEMIS) is aiming at the guided discovery of such molecules and at developing them as a unique toolbox for different applications, using Machine Learning and Additive Manufacturing.

Potential applications range from electrocatalysis for hydrogen production to guided tissue regeneration and “smart” coating of medical implants. Data-driven prediction represents a novel and powerful way to boost the discovery, synthesis and the design of new multi-functional materials, as well as for scaling-up and fabrication of devices.

2_ NEUROTECH

Diagnose and treat mental dysfunction with the help of Artificial Intelligence

Disorders of mental health are amongst the most pressing medical problems that our society faces. Phenomena such as cognitive deficits, depression or chronic pain are caused by disorders of the nervous system, but the mechanisms remain unclear. The TUM Innovation Network for Neurotechnology in Mental Health (Neurotech) develops new approaches and technologies to improve the precision of clinical diagnoses and the success of treatments for mental dysfunction.

The team uses electrophysiological methods to record and modulate brain activity at an extraordinary level of detail and combines them with cutting-edge tools from Data Science. The aim is not only to better understand and differentiate mental disorders, but also to create new, individualized treatment strategies for patients.

3_ RISE

Exploring life combining AI and Robotics with chemical and biophysical experiments.

How did life emerge? Could it exist elsewhere? Could we even synthesize life – a system that is self-sustaining, self-replicating and evolving? The TUM Innovation Network for Robot Intelligence in the Synthesis of Life (RISE) aims to develop a radically new approach to these centuries-old questions, combining Machine Learning and Robotics with chemical and biophysical experiments.

Robots will not only take tedious tasks out of the scientists’ hands, but actually become part of the experiments. By allowing the robots to observe data in real-time, letting them analyze experiments, and, via Artificial Intelligence, change the course of the experiments, the scientists anticipate that a self-learning experiment evolves towards a system that displays the essential hallmarks of life. It is a development with the potential to revolutionize research and development in both industry and academia.

EXPERI- ENCING TUM

We invite you to participate in **cutting-edge research at a world-class level!** Whether we are exploring the fundamentals of life, matter and the universe, or searching for solutions to society's most pressing challenges: People are at the center of TUM's agenda for research and innovation.



Recordings

Have you missed the Women of TUM Talks or the TUM Covid-19 Lectures? No problem. Many events at TUM are being recorded and are available to you as online lectures after the event.

TUM Covid-19 Lectures

wiki.tum.de/display/COVID19Lectures

Dies academicus 2020

www.tum.de/en/about-tum/news/events/dies-academicus

Munich Talks with TUM President Thomas F. Hofmann

Science and Engineering in a Changing World

munich-talks.de/project/hofmann

Lecture Series 'Environment'

Sustainability Around the World – Let's learn from others!

<https://umwelt.asta.tum.de/rfu/language/en/lecture-series/lecture-recordings>

Women of TUM Talks 2021

www.community.tum.de/en/women

Update From the President

Would you like to discover more about what's new at TUM and which exciting projects are in the pipeline for the future? During the Annual Academic Celebration **Dies academicus**, President Thomas F. Hofmann will catch you up on the successes of the past year and the plans for the coming months. All members of the TUM Family are cordially invited.

On the 2nd of December 2021
www.tum.de/en/about-tum/news/events/dies-academicus

Learning From International Perspectives

TUM is at home all over the world. It maintains representative offices in Asia, North America, Latin America and Europe. Furthermore, it is connected with more than 160 partner universities on all continents. The international partners contribute a wide range of perspectives that are well worth learning from.

www.international.tum.de/en/global/globalevents

TUM Global Dialogue Series

What does Latin America believe to be the future of the food industry? What is Beijing's take on the connection between innovation and sustainability? In online events, TUM scientists and social players give insights into their work and engage in dialogue with the TUM Community and interested members of the public.

TUM Brussels Dialogue

10th of November 2021

Technology for Society – Are we Getting it Right?

TUM Beijing Dialogue

3rd of December 2021

Tsinghua-TUM Talks on Innovation and Sustainability

TUM São Paulo Dialogue

9th of December 2021

The Future of Food

What are the Alumni in San Francisco up to?

San Francisco is the economic center of the US West Coast and located near Silicon Valley. The valley that is home to more than 1,000 electronics and computer companies conducting their research and trade there. TUM



has a liaison office on site. In live and online events, TUM Alumni regularly report on their life and work in the area. The next Alumni Chat will take place on the 9th of November 2021 with TUM Alumni Enrique Lin Shao.

TOP RESEARCH LIVE

on the 27th of October

with Prof. Josef Nossek

Science thrives on personalities with great experience. Prof. Josef Nossek, former Professor at the TUM Department of Electrical and Computer Engineering, will talk about his current research focusing on Circuit Theory and Signal Processing. The lecture is part of the series "Tech-Histories Alive", organized by the TUM Senior Excellence Faculty in cooperation with MCTS.

www.emeriti-of-excellence.tum.de/tech-histories-alive

LET'S CELEBRATE CREATIVITY

With their symposium on October 30, 2021, the students of TUM: Junge Akademie seek to explore creativity at TUM. With this aim, they are bringing together people who have something to say about creativity: interesting personalities from various fields, students, professors, and special guests. Meet AI artists, take part in creative online challenges, and get in touch with six creative and inspiring ideas and projects that have emerged over the past year, and revolve around the topic of Arts & Technology.

www.ja.tum.de/ja/celebrate-creativity



BRAND NEW
The TUM Podcast
"WE ARE
TUM"

The new podcast "We are TUM" is featuring the people who make TUM what it is: From top researchers to students and teaching staff to the "hidden champions" who otherwise often remain behind the scenes. The episodes are presented by President Thomas F. Hofmann.

"We are TUM" episodes are published at six-week intervals on all relevant podcasting platforms



Music is ...

Seven Alumni tell us how music contributes to their lives

A person's education and professional skills are not the only ingredients that make her or him a successful researcher or innovative entrepreneur. Also the things we do in our free time shape our personality; we draw strength, recharge our batteries, and often come up with new ideas when we are not working – for example, when we are making music. TUM Alumni report on how music contributes to their everyday lives and their work.



MUSIC IS
Human

B o s o n S t e f a n L i u a n d X i n g Y e

During the day, Boson Stefan Liu is conducting research at the Chair of Robotics, Artificial Intelligence and Real-Time Systems, focusing on human safety around robots; in the evening, he is making music with his wife Xing Ye, who works in the automotive industry. “Art is something profoundly human; that is what I love about music,” he says.

Xing Ye’s favorite instrument is the pipa, a Chinese four-stringed lute. Stefan Liu plays the piano, but also sings in an internationally renowned jazz a cappella choir. Because this has not been possible for a long time, he and his wife now practice and perform together, combining the pipa with the piano. They enjoy taking a break in the world of music, because nothing is automated there, nothing is perfect: “It’s the little mistakes that make us human.”



Boson Stefan Liu (Bachelor Mechatronics and Computer Engineering 2015, Master Robotics, Cognition, Intelligence 2017) and Xing Ye (Master Management and Technology 2021) met during the TUMexchange program at Zhejiang University in China and subsequently moved to Munich to study together at TUM. Xing Ye works in the automotive industry. Meanwhile, Stefan Liu is doing his Doctorate at the Chair of Robotics, Artificial Intelligence and Real-Time Systems and is developing algorithms to prevent robots from hurting people.

MUSIC Doing.

Hans-Joachim Bungartz

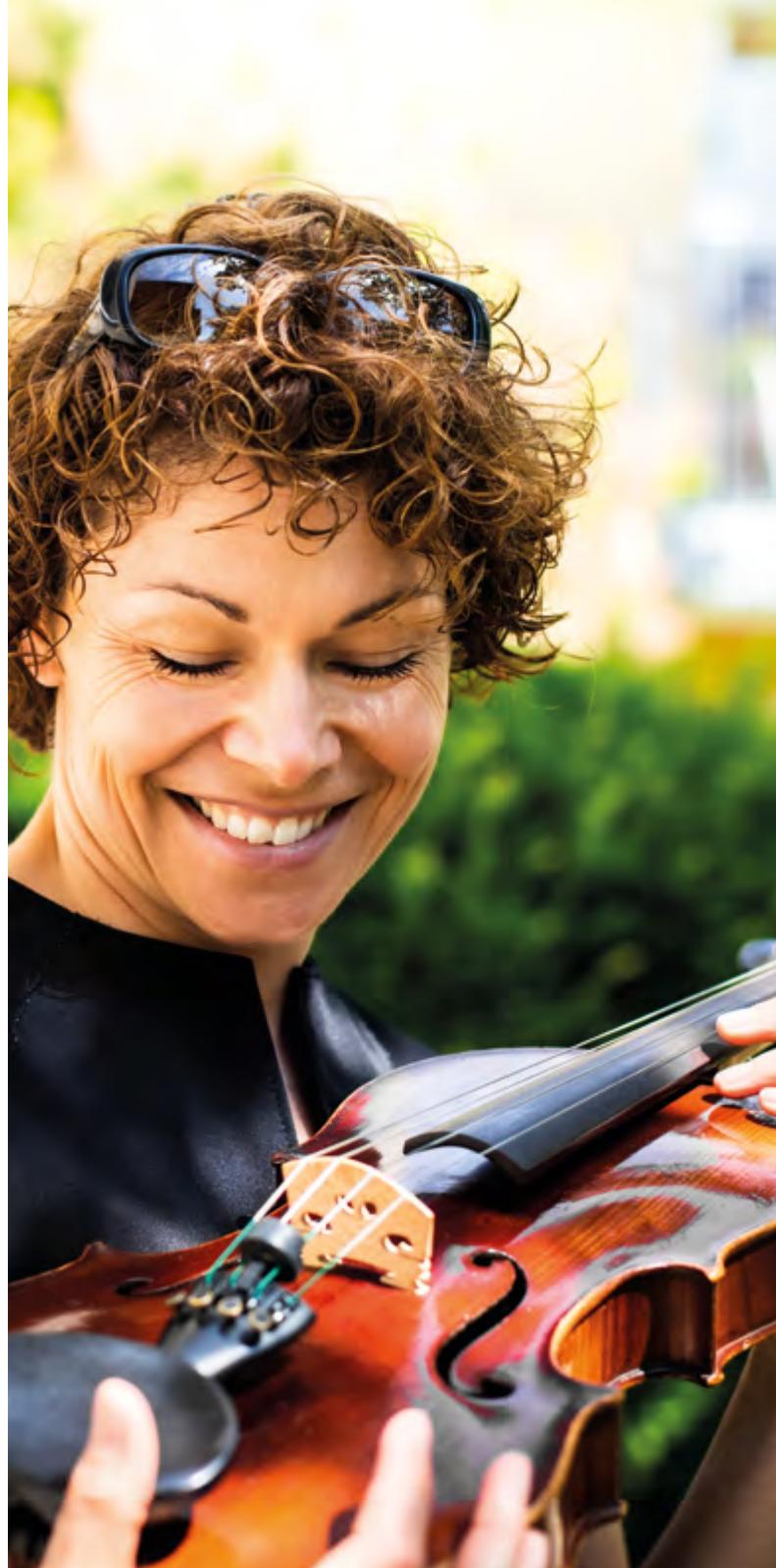
A life without music? Prof. Dr. Hans-Joachim Bungartz simply cannot imagine that. He is a Professor and Dean at the Faculty of Informatics at TUM and plays the violin in his spare time – in chamber and symphony orchestras. “Making music really is key here,” he emphasizes. And no matter what stage of life you find yourself in, no matter how busy your schedule is, you have to keep at it, “after all, we always make time for lunch”. Music contributes to his everyday life in a number of ways, he says: Managing nervousness and learning to improvise, getting rid of shyness in front of a large audience and delivering a performance to the point. But also getting to know people from a different side, paying attention to others and at the same time giving others guidance: “If you’ve learned how to deal with solo divas, even the weirdest behavior from professors won’t knock you off your feet. In this respect, the dean in me is benefiting immensely from music.”

Prof. Dr. Hans-Joachim Bungartz (Diploma Mathematics 1988, Diploma Informatics 1989, Doctorate Informatics 1992, Habilitation 1998) received his entire academic education at TUM and returned to TUM in 2004 as Professor of Informatics with a focus on Scientific Computing after working in Augsburg and Stuttgart. Since 2013, he has been Dean of the Faculty of Informatics at TUM and Director of the TUM Graduate School.

S u s a n n e G r o ß k u r t h

When Dr. Susanne Großkurth picks up the viola, she is stepping into a parallel world far away from her job and everyday family life. But the world of music is not just relaxation, it also enriches her life. “You discover the world once again through different eyes,” she says, “in an orchestra you play with people from very different professions and age groups and create something special together.” It is not work or family that connects them, but rather creating something together in music.

Susanne Großkurth herself comes from a family of musicians. In addition to the viola, she also learned the piano and saxophone and has been a member of the Symphonic Ensemble Munich for many years, which, among other events, performs annually at the TUM Advent Concerts. For her, an orchestra is like a large, well-functioning team in which the various members do not operate in opposition to each other, but with each other. And then many individual voices become one. That’s what drives her: “making music, developing something, creating together.”



Dr. Susanne Großkurth (Diploma Mechanical Engineering 2008) only decided by a hair to study at TUM and not at a conservatory. Today, the Engineer works as an assistant to the Executive Board at MTU Aero Engines and benefits from her experience as a musician, because she believes that, no matter where, good teamwork is the key to success.

MUSIC IS
TEAMWORK. ⁵¹

MUSIC IS Development Therapy.

There are numerous musicians in the ranks of TUM.

More portraits are available here:

www.community.tum.de/en/music-connects



Renée Lampe

As a physician and avid piano player, Prof. Dr. Renée Lampe has combined her two passions: The professor of Pediatric Orthopedics is doing research on the positive influences of music in the therapy of people with motor impairments and shows how playing the piano improves hand motor skills, changes brain activity and creates new neuroplastic connections. Renée Lampe herself started playing the piano at the age of six.

Since then, music has had a profound meaning in her life. In collaboration with a research group, she has developed a sensomotoric piano system; a corresponding score recognition system that translates musical notes into letters helps people to learn pieces of music without any knowledge of musical notation. With this method, she wants to enable people with cerebral palsy to learn how to play the piano. “I want to make accessible to other people what I myself have been able to experience in music.”

Prof. Dr. Renée Lampe (Habilitation Medicine 2004) studied Medicine in Heidelberg and Mannheim, completed her residency in Orthopedics at LMU Munich and did her habilitation at TUM. As a Pediatric Orthopedist specializing in cerebral palsy, she concurrently supervised a center for people with physical disabilities for many years. Preventing cerebral hemorrhages in early childhood through research or providing complex support for people through music-assisted therapy – these goals have brought her back to research at TUM's Klinikum rechts der Isar, where she is heading the research unit for cerebral palsy and pediatric neurology of the Buhl-Strohmaier-Stiftung and holds the Markus Würth Endowed Chair.



Renée Lampe and her team have developed a sensomotoric piano system that enables people with motor impairments to learn to play the piano.

MUSICIANS FREEDOM

Christoph Dittus
Maximilian Langheinrich

BANE
DON'T WAIT UP

For Maximilian Langheinrich and Christoph Dittus, too, music is an outlet: “Escape from everyday life, consciously unplug and clear your head,” that is important for the researcher and the industrial designer, who play together in the old-school hardcore band The Raw Deals. But music is even more than that, he says: “If I just wanted to let off steam, I could play tennis,” Christoph Dittus says: “With music, I can go further.” When the two are writing new songs, they organise their thoughts, they translate their emotions into artistic work.

Maximilian Langheinrich and Christoph Dittus went to school in Dachau, and music helps them stay in touch in spite of their different lifestyles. Maximilian Langheinrich (Master Geodesy and Geoinformation 2016) studied in Munich and came to TUM for his Master's degree. He wrote his Master's thesis at the German Aerospace Center (DLR), where he has been employed ever since and is doing his Doctorate on atmospheric correction at the same time. Christoph Dittus (Master Industrial Design 2010) did his Bachelor's degree in Schwäbisch Gmünd and moved to TUM for his Master's degree. As an Industrial Designer he is developing designs for capital and consumer goods, e.g. for construction vehicles, blood pressure monitors or bicycles.

Experiencing Music Together

Since 2008, TUM has invited its members on the first Sunday of Advent to experience music together. The different generations of the TUM Family come together both in the audience and on stage: students, alumni and employees sing and play in the TUM Choir and Orchestra; the audience includes old and young, engineers, scientists from the humanities and natural sciences, and people of all nationalities. Vivat TUM!

Concert Introduction

17th of November 2021

Beethoven, Schiller and the 5th Symphony



Prof. Felix Mayer is holding a concert introduction especially for TUM Alumni.

Is „fate knocking at the door“ in the 5th Symphony, just like Beethoven’s confidant Anton Schindler said? Or is the famous main motif even in fact merely an imitation of birdsong, as Carl Czerny claims? Can an instrumental piece „mean“ anything specific at all?

It is generally known that Ludwig van Beethoven was a great admirer of Friedrich Schiller. He not only set Schiller’s poem „Ode to Joy“ to music, but was also familiar with his philosophical writings and drew inspiration from them. In his concert introduction, conductor Felix Mayer explains how Schiller’s treatise „On the Aesthetic Education of Man in a Series of Letters“ inspired Beethoven’s composition of the 5th and 6th Symphonies. A close reading of Schiller’s text explains many of the symphonies’ peculiarities.

www.community.tum.de/en/events

TUM Advent Concerts

Concerts

28th of November 2021

The entire TUM Family is getting together at TUM’s annual Advent Concerts. Every year, alumni, first-year students and their parents, as well as Bund der Freunde members of TUM are invited to the Vivat TUM concert in the afternoon. The Symphonic Ensemble Munich (SEM) and the TUM Choir under the direction of Prof. Felix Mayer join the TUM Community in celebrating their love of music. This year’s Advent Concerts will be dedicated to Ludwig van Beethoven: Symphony No. 5 in C minor, op. 67, and Concerto for Piano and Orchestra No. 4 in G major, op. 58 will be performed, with Gerold Huber as the piano soloist.

www.community.tum.de/en/communityevents/#vivat-tum

Do You Sing or Play an Instrument?

Why not play music with us?

TUM offers many opportunities to practice and deepen your love of music. Do you play an instrument? Perhaps the TUM Chamber Orchestra or the Symphonic Ensemble Munich provide just the right setting for you. Or perhaps you would like to sing in the TUM Choir – together with other alumni, students and employees of TUM.

www.tum.de/studium/campusleben/en/music-and-art



Traditionally, the Advent Concerts took place in Munich’s Gasteig. This year, we are relocating to the newly built Isarphilharmonie.

CALENDAR OF **EVENTS**

Please Check!

Due to the coronavirus pandemic, events may be subject to change at short notice. Therefore, we ask you to always check in advance on the respective website whether there are any changes to the event.



TUM Mentoring

Valuable Sparring Partners From the TUM Network

TUM Mentoring Programs

TUM Mentoring Classic: TUM Alumni support TUM students and Doctoral students for the duration of one year.

TUM Mentoring Professional: TUM Alumni advise young professionals on various topics.

TUM Mentoring JobTalk: Students and Doctoral students ask specific questions, TUM Alumni answer in a conversation.

TUM Mentoring for Scientists: International research alumni and guest researchers support Doctoral students and postdocs at TUM.

www.community.tum.de/en/mentoring

Exhibitions and Regular Events

Thu. 04.11.2021 – Sun. 06.02.2022
10 am – 6 pm

Who's Next? Obdachlosigkeit,
Architektur und die Stadt
Exhibition
Architekturmuseum der TUM in der
Pinakothek der Moderne, Munich
www.architekturmuseum.de/en/exhibitions/whos-next

Thu. 10.03.2022 – Sun. 05.06.2022
10 am – 6 pm

Neue Nachbar*innen.
Einblicke ins Archiv
Exhibition
Architekturmuseum der TUM in der
Pinakothek der Moderne, Munich
www.architekturmuseum.de/en/exhibitions/new-neighbors

Jeden Samstag
11 am

Lauftreff der TUM
Training
Milchhäusl im Englischen Garten, Munich
www.community.tum.de/forum/gruppen/tum-laufgruppe

Always up to Date!

The TUM Alumni Newsletter keeps you informed about current changes and upcoming events. Subscribe to the newsletter "TUM Updates" in your profile in the TUM Online Community.
www.community.tum.de/en/registrierung

Brand New – The TUM Podcast!



The new podcast "We are TUM" is featuring the people who make TUM what it is: From top researchers to students and teaching staff to the "hidden champions" who otherwise often remain behind the scenes. The episodes are presented by President Thomas F. Hofmann.

"We are TUM" episodes are published at six-week intervals on all relevant podcasting platforms.

TUM Mentoring is offering regular events for its network:

The **TUM Mentoring Stammtisch** is taking place quarterly in the evening, if possible in the city center of Munich, otherwise online. Expect interesting conversations and a relaxed exchange within the TUM Mentoring Network. The current dates can be found here on the TUM Mentoring website.

go.tum.de/797573

The **Meet-up for TUM Entrepreneurs** is always held online on the last Wednesday of the month. TUM Alumni and entrepreneur Vincent Hommel is bringing together aspiring and experienced entrepreneurs online to exchange ideas, discuss and collaborate.

go.tum.de/797573

The **Alumni & Student Get-Together in Greater Stuttgart** is an initiative of the two TUM Alumni Dr. Viktoria Leonhard and Kai-Olaf Dammenhain. The TUM Community in the Stuttgart area gets together on a regular basis, virtually or in person, to exchange experiences or to discuss specific topics.

go.tum.de/797573

October 2021

Wed. 27.10.2021

6:30 pm – 8 pm

Tech-Histories Alive mit TUM Emeritus of Excellence Josef Nossek
Lecture
TUM Campus Munich
www.emeriti-of-excellence.tum.de

Wed. 27.10.2021

7 pm – 8 pm

Meetup für TUM-Gründerinnen und -Gründer
Get-together
Online
www.community.tum.de/veranstaltungen

Thu. 28.10.2021

1:30 pm – 2:30 pm

Learning from Leaders:
Petra Scharner-Wolff
Lecture
TUM Campus Munich & online
www.lll.tum.de/event/learning-from-leaders-petra-scharner-wolff

Thu. 28.10.2021

5 pm – 6 pm

Preparation for your future career.
How to optimise your time at university.
Webinar
www.community.tum.de/veranstaltungen

Thu. 28.10.2021

5 – 7 pm

Profitable Landwirtschaft in 2022 (Prof. Dr. Achim Spiller, Göttingen)
Lecture
TUM Campus Weihenstephan & online
www.hef.tum.de/veranstaltungen/hans-eisenmann-akademie-oeffentliche-vortragsreihe

Thu. 28.10.2021

5:30 pm – 7 pm

TUM San Francisco Dialogue:
Internationalization – a key to entrepreneurial success
Panel
Online
www.international.tum.de/globalevents

Fri. 29.10.2021

11 am – 12 pm

Irrtümer im Bewerbungsprozess.
Fehler, die Sie vermeiden sollten.
Webinar
www.community.tum.de/veranstaltungen

Sat. 30.10.2021

8 pm – 9:30 pm

TUMJA Symposium:
Celebrate Creativity!
Symposium
TUM Campus Munich & online
www.ja.tum.de/ja/celebrate-creativity

November 2021

November 2021

6 pm – 9 pm

Berufsfelder im Fokus
Webinar
www.community.tum.de/veranstaltungen

November 2021

Job Perspectives for International Students in Germany
Webinar
www.community.tum.de/veranstaltungen

November 2021

Women of TUM-Panel:
„Karrierefalle Teilzeit?!“
Panel
Online
www.community.tum.de/veranstaltungen

Tue. 02.11.2021

1 pm – 1:30 pm

Virtuelles KarriereCafé:
Motivation während der Promotion
Webinar
www.community.tum.de/veranstaltungen

Wed. 03.11.2021

11 am – 12 pm

Überzeugende Lebensläufe für Promovierende und Postdocs
Webinar
www.community.tum.de/veranstaltungen

Wed. 03.11.2021

5 pm – 6:30 pm

TUM Start-ups: Meet & Talk – Insights from Michael Wax, Forto
Get-together
Munich
www.community.tum.de/veranstaltungen

Thu. 04.11.2021

6:15 pm – 8 pm

Abenteuer Führung.
Advice from Colleagues (in German)
Online
www.community.tum.de/veranstaltungen

Tue. 09.11.2021

Alumni Chat mit TUM Alumnus Enrique Lin Shiao
Get-together
Online
www.community.tum.de/veranstaltungen

Tue. 09.11.2021

4:30 pm – 5:30 pm

Learning from Leaders:
TUM Alumnus Reinhard Ploss
Lecture
TUM Campus Munich & online
www.lll.tum.de/event/learning-from-leaders-reinhard-ploss

Tue. 09.11.2021

6:30 pm – 8 pm

Ringvorlesung der Professur für Neuere Baudenkmalpflege: „... about being careful. Positionen zum Bestand“
Lecture
Online
www.arc.ed.tum.de/nb/lehre/vorlesung

Tue. 09.11.2021

7 pm – 9 pm

TUM Mentoring Diskussion: Digitale Transformation. Städteplanung. Architektur – In welcher Zukunft möchten wir leben?
Panel
TUM Campus Munich
www.community.tum.de/veranstaltungen

Wed. 10.11.2021

3 pm – 5 pm

TUM Brussels Dialogue: Technology for Society – are we getting it right?
Panel
Online
www.international.tum.de/global/globalevents

Wed. 10.11.2021

6 pm – 7 pm

Führungskompetenzen für Promovierte und Postdocs
Webinar
www.community.tum.de/veranstaltungen

Wed. 10.11.2021

7 pm – 8:30 pm

Women of TUM Afterwork mit Dr. Katrin Hahn: From place to space: new digital modes of entrepreneurial work during the COVID-19 pandemic
Lecture
Online
www.community.tum.de/veranstaltungen

Thu. 11.11.2021

9 am – 10 am

Q&A zum Thema Jobsearch
Webinar
www.community.tum.de/veranstaltungen

Thu. 11.11.2021

10:30 am – 11:30 am

Karriereplanung. Eine erfüllende und nachhaltige Karriere planen
Webinar
www.community.tum.de/veranstaltungen

Thu. 11.11.2021

12 pm – 2 pm

BewerbungsCheck live
Webinar
www.community.tum.de/veranstaltungen

Thu. 11.11.2021

3 pm – 5 pm

Speed Dating mit Unternehmen
Webinar
www.community.tum.de/veranstaltungen

Thu. 11.11.2021

9 pm – 7:30 pm

Career Lounge: Karriere in der Luft- und Raumfahrt
Panel
Online
TUM Campus Weihenstephan & online
www.community.tum.de/veranstaltungen

TUM CAREER DAY

Thu. 11.11.2021

5 pm – 7 pm

Land und Landwirtschaft (Prof. Dr. Silke Hüttel, Bonn)
Lecture
TUM Campus Weihenstephan & online
www.hef.tum.de/veranstaltungen/hans-eisenmann-akademie-oeffentliche-vortragsreihe

Fri. 12.11.2021

9 am – 5 pm

Fit for TOMorrow Day
Career Fair
TUM Campus Garching & online
www.groups.ma.tum.de/mathfinance/fit-for-tomorrow/aktuelle-veranstaltungen/fit-for-tomorrow-day-2021-12-november-2021

Fri. 12.11.2021

4 pm – 5 pm

Personalized CVs for Applications in Germany
Webinar
www.community.tum.de/veranstaltungen

Mon. 15.11.2021

11 am – 12 pm

Mit Bewerbungsanschreiben überzeugen
Webinar
www.community.tum.de/veranstaltungen

Tue. 16.11.2021

12 pm – 1 pm

Social Media. Using Social Media for Your Career
Webinar
www.community.tum.de/veranstaltungen

Tue. 16.11.2021

5 pm – 6 pm

Erfolg im neuen Job. Strategien für die ersten 100 Tage
Webinar
www.community.tum.de/veranstaltungen

Wed. 17.11.2021

7 pm – 9 pm

Einführung zu den Adventskonzerten
Lecture
TUM Campus Munich & online
www.community.tum.de/veranstaltungen

Thu. 18.11.2021

1 pm – 1:30 pm

Virtuelles KarriereCafé: Lehrerfahrungen für die Karriere nutzen
Webinar
www.community.tum.de/veranstaltungen

Thu. 18.11.2021

4 pm – 5 pm

Lebensläufe individuell gestalten
Webinar
www.community.tum.de/veranstaltungen

Thu. 18.11.2021

5:30 pm – 7:00 pm

„Ran an die TUM“:
Gestalte die Umwelt aktiv mit!
Ingenieursdisziplinen Bau, Geo, Umwelt
Lecture
Online
www.schueler.tum.de/ran

TUM Career Days

A Day For Your Career

The TUM Career Days will once again be held online this winter semester. Webinars and other online formats will provide you with comprehensive information on careers, applications and career entry. In addition, we will again offer Online Speed Dating with Companies. In the evening, experienced TUM Alumni will talk about „Careers in Aerospace Engineering“ (11th of November 2021) and „Start-up, Medium-Sized Company or Large Corporation? Which Company is Right for Me?“ (27th of January 2022).

Termine

Thu. 11.11.2021,
Thu. 27.01.2022
all day

Registration/Info

www.community.tum.de/en/career-days





Recording

TUM at Home With You

You missed the Women of TUM Talks or the TUM Covid-19 Lectures? No problem. Many events at TUM are being recorded and are available to you as online lectures.

Women of TUM Talks 2021

www.community.tum.de/en/tum-community/women/#talks

TUM Covid-19 Lectures 2021

wiki.tum.de/display/COVID19Lectures

Dies academicus 2020

www.tum.de/en/about-tum/news/events/dies-academicus

Munich Talks with TUM President Thomas F. Hofmann 2020 “Science and Engineering in a Changing World“

munich-talks.de/project/hofmann

Lecture Series ‘Environment‘

“Sustainability Around the World – Let’s Learn From Others!“

umwelt.asta.tum.de/rfu/language/en/lecture-series/lecture-recordings/

Online Vernissage of the Exhibition

“Taiwan Acts! Architecture in Social Dialogue“ at the Architekturmuseum der TUM

architekturmuseum.de/taiwanacts/openingceremony/

Online Lecture TUM@Freising:

“Improving Human and Animal Wellbeing“

www.wzw.tum.de/index.php?id=533

Sat. 20.11.2021

All day

On Tour with Our Guests:

Visit the ESO Supernova in Garching Guided Tour

TUM Campus Garching

www.community.tum.de/veranstaltungen

Tue. 23.11.2021

10 am – 11 am

Convincing Cover Letters

for Applications in Germany

Webinar

www.community.tum.de/veranstaltungen

Tue. 23.11.2021

4:30 pm – 6 pm

Global Minds Schweden

Webinar

www.community.tum.de/veranstaltungen

Tue. 23.11.2021

6:30 pm – 8 pm

Ringvorlesung: „... about being careful. Positionen zum Bestand“

Lecture

Online

www.arc.ed.tum.de/nb/lehre/vorlesung

Wed. 24.11.2021

5 pm – 8 pm

Successfully Negotiating

your First Salary

Webinar

www.community.tum.de/veranstaltungen

Wed. 24.11.2021

7 pm – 8 pm

Meetup für TUM-Gründerinnen

und -Gründer

Get-together

Online

www.community.tum.de/veranstaltungen

Thu. 25.11.2021

5 pm – 7 pm

GAP Revision aus betriebswirtschaftlicher und agrarpolitischer

Sicht – die neuen Eco-Schemes

(Prof. Dr. Uwe Latacz-Lohmann, Kiel)

TUM Campus Weihenstephan & online

Lecture

www.hef.tum.de/veranstaltungen/hans-eisenmann-akademie-oeffentliche-vortragsreihe

Thu. 25.11.2021

6 pm – 7 pm

Rechte & Pflichten im Job –

Arbeitsvertrag und Arbeitszeugnisse

(Alumni Special)

Webinar

www.community.tum.de/veranstaltungen

Mon. 29.11.2021

5 pm – 8 pm

Bewerben 4.0 –

Aktuelle Recruiting Trends

Webinar

www.community.tum.de/veranstaltungen

December 2021

Dezember 2021

1 pm – 1:30 pm

Virtuelles KarriereCafé

Webinar

www.community.tum.de/veranstaltungen

Dezember 2021

6 pm – 7 pm

Berufsfelder im Fokus

Webinar

www.community.tum.de/veranstaltungen

Wed. 01.12.2021

5 pm – 7:30 pm

Meetup in Kooperation mit
„Women Start-up“, Unternehmertum
Get-together

Munich Urban Colab

www.community.tum.de/veranstaltungen

Wed. 01.12.2021

6 pm – 7:30 pm

Abenteuer Berufseinstieg

Advice from Colleagues (in German)

Online

www.community.tum.de/veranstaltungen

Thu. 02.12.2021

10 am – 1 pm

Dies academicus

Celebration

TUM Campus Munich

www.tum.de/die-tum/aktuelles/veranstaltungen/diesacademicus

Thu. 02.12.2021

5:30 pm – 7 pm

„Ran an die TUM“: Denken auf
mehreren Ebenen. Architektur

Lecture

Online

www.schueler.tum.de/ran

Fri.03.12.2021

9 am – 10:30 am

TUM Beijing Dialogue: Tsinghua-TUM
Talks on Innovation and Sustainability

Panel

Online

www.international.tum.de/global/globalevents

Fri.03.12.2021

3 pm – 4 pm

Tipps für Vorstellungsgespräche
und Assessment Center Teil 1:

Souverän im Vorstellungsgespräch

Webinar

www.community.tum.de/veranstaltungen

Fri.03.12.2021

4:30 pm – 5:30 pm

Tipps für Vorstellungsgespräche
und Assessment Center Teil 2:

Wie funktioniert ein

Assessment Center?

Webinar

www.community.tum.de/veranstaltungen

Mon. 06.12.2021

11 am – 12 pm

Career Entry in Germany. Getting
started on the German Job Market

Webinar

www.community.tum.de/veranstaltungen



TUM Global Dialogue Series

Science Dialogue

TUM scientists and social players shed light on their work and open a dialogue with the TUM Community and interested members of the public. The TUM Global Dialogue Series always takes place in the fall at the various TUM locations and connects the TUM Family around the world. The events are held online and in English.

TUM San Francisco Dialogue:

Internationalization – a key to entrepreneurial success

Thu. 28.10.2021, 5:30 pm – 7 pm

TUM Brussels Dialogue:

Technology for Society – are we getting it right?

Wed. 10.11.2021, 3 pm – 5 pm

TUM Asia Dialogue: Circular economy –

from advanced to sustainable manufacturing

Mon. 15.11.2021, 9 am – 10:30 am

TUM Mumbai Dialogue: Indo-German cooperation

and global environmental risks

Thu. 25.11.2021, 10:30 am – 12 pm

TUM Beijing Dialogue:

Tsinghua-TUM Talks on Innovation and Sustainability

Fri. 03.12.2021, 9 am – 10:30 am

TUM São Paulo Dialogue: The Future of Food

Thu. 09.12.2021, 11:30 am – 1 pm

www.international.tum.de/en/global/globalevents

Certificate Programs for TUM Alumni

Would you like to learn more and deepen your knowledge? As a TUM Alumni, you can take advantage of the TUM Institute for LifeLong Learning and qualify for a 10 percent discount on the course fees. The institute offers a wide range of science-based Certificate programs for advanced training of executives from science, business and civil society at all stages of their careers. Experienced lecturers combine cutting-edge research findings from TUM with the latest knowledge from the field. This enables participants to seamlessly apply their newly acquired knowledge and integrate it into their everyday work.

Programme

Business Processes &
Information Technology

Built Environment

Innovation, Technology
and Entrepreneurship

Leadership & Strategy

Finance & Management

Productivity & Quality

Life & Natural Sciences

Medicine & Health

Transformation &
Sustainability

[www.lll.tum.de/
certificate-programs](http://www.lll.tum.de/certificate-programs)

Tue. 07.12.2021
4 pm – 5 pm
Efficient Job Hunting for
PhD students and Postdocs
Webinar
www.community.tum.de/veranstaltungen

Tue. 07.12.2021
6:30 pm – 8 pm
Ringvorlesung: „... about being
careful. Positionen zum Bestand“
Lecture
Online
www.arc.ed.tum.de/nb/lehre/vorlesung

Wed. 08.12.2021
7 pm – 9 pm
TUM Mentoring Vortrag:
Kreative Wege aus einem Konflikt –
klar kommunizieren mit Gewaltfreier
Kommunikation
Lecture
Online
www.community.tum.de/veranstaltungen

Thu. 09.12.2021
11:30 am – 1 pm
TUM São Paulo Dialogue:
The Future of Food
Panel
Online
www.international.tum.de/global/globalevents/

Thu. 09.12.2021
3 pm – 4 pm
Die perfekte Selbstpräsentation.
6 Tipps zur Optimierung Ihres Pitches.
Webinar
www.community.tum.de/veranstaltungen

Thu. 09.12.2021
5 pm – 7 pm
NN (Prof. Dr. Jochen Kantelhardt,
Wien)
Lecture
TUM Campus Weihenstephan & online
www.hef.tum.de/veranstaltungen/hans-eisenmann-akademie-oeffentliche-vortragsreihe

Thu. 09.12.2021
5:30 pm – 7 pm
„Ran an die TUM“:
Bringing Politics & Technology
Together. Politikwissenschaften
Lecture
Online
<https://www.schueler.tum.de/ran/>

Thu. 09.12.2021
6:15 pm – 8 pm
Abenteuer Führung
Advice from Colleagues (in German)
Online
www.community.tum.de/veranstaltungen

Fri. 10.12.2021
11:30 am – 1 pm
Global Minds USA/UK
Webinar
www.community.tum.de/veranstaltungen

Fri. 10.12.2021
5 pm
Mitgliederversammlung
Bund der Freunde der TUM e. V.
www.bund-der-freunde.tum.de

Mon. 13.12.2021
4 pm – 5 pm
Mit Bewerbungsanschreiben
überzeugen
Webinar
www.community.tum.de/veranstaltungen

Wed. 15.12.2021
10 am – 1 pm
Application 4.0 – Essentials
for getting hired
Webinar
www.community.tum.de/veranstaltungen

Thu. 16.12.2021
11 am – 12 pm
Lebensläufe individuell gestalten
Webinar
www.community.tum.de/veranstaltungen

Sun. 28.11.2021
11 am & 2:30 pm
TUM Adventskonzerte
Gala Event
Gasteig HP8, Munich
[www.community.tum.de/
communityevents/#vivat-tum](http://www.community.tum.de/communityevents/#vivat-tum)

Wed. 29.12.2021
7 pm – 8 pm
Meetup für TUM-Gründerinnen
und -Gründer
Get-together
Online
www.community.tum.de/veranstaltungen

January 2022

Januar 2022
1 pm – 1:30 pm
Virtuelles KarriereCafé
Webinar
www.community.tum.de/veranstaltungen

Januar 2022
6 pm – 7 pm
Berufsfelder im Fokus
Webinar
www.community.tum.de/veranstaltungen

Januar 2022
Job Perspectives for International
Students in Germany
Webinar
www.community.tum.de/veranstaltungen

Mon. 10.01.2022
10 am – 11 am
Personalized CVs for
Applications in Germany
Webinar
www.community.tum.de/veranstaltungen

Tue. 11.01.2022
10 am – 11 am
Promovieren mit Industriebezug –
Die Grundlagen
Webinar
www.community.tum.de/veranstaltungen

Tue. 11.01.2022
2 pm – 5 pm
Das Assessment Center –
Praxishilfen und Übungstipps
Webinar
www.community.tum.de/veranstaltungen

Tue. 11.01.2022

6:30 pm – 8 pm

Ringvorlesung: „... about being careful. Positionen zum Bestand“

Lecture

Online

www.arc.ed.tum.de/nb/lehre/vorlesung

Wed. 12.01.2022

6 pm – 7 pm

Promovieren mit Industriebezug – Erfahrungen aus der Praxis

Webinar

www.community.tum.de/veranstaltungen

Thu. 13.01.2022

5:30 pm – 7 pm

„Ran an die TUM“: Am Puls der Zeit – Nachhaltig(keit) studieren. Biotechnologie

Lecture

Online

www.schueler.tum.de/ran

Thu. 13.01.2022

6:30 pm – 8 pm

Global Minds Spanien

Webinar

www.community.tum.de/veranstaltungen

Mon. 17.01.2022

11 am – 12 pm

Mit Bewerbungsanschreiben überzeugen

Webinar

www.community.tum.de/veranstaltungen

Mon. 17.01.2022

5 pm – 7 pm

Vortragsreihe Energiesysteme und Energietechnik

Lecture

TUM Campus Garching & online

www.mw.tum.de/es/aktuelles/events

Mon. 17.01.2022

6 pm – 7 pm

Berufsfelder im Fokus: Herausforderung Unternehmensentwicklung

Webinar

www.community.tum.de/veranstaltungen

Wed. 19.01.2022

6 pm – 7:30 Uhr

Abenteuer Berufseinstieg
Advice from Colleagues (in German)

Online

www.community.tum.de/veranstaltungen

Wed. 19.01.2022

7 pm – 8:30 pm

Women of TUM Afterwork
mit Anna Magdalena Hepp

Lecture

TUM Campus Munich or online

www.community.tum.de/veranstaltungen

Thu. 20.01.2022

4 pm – 5 pm

Lebensläufe individuell gestalten

Webinar

www.community.tum.de/veranstaltungen

Thu. 20.01.2022

5 pm – 7 pm

Landwirtschaft in Bayern im Jahr 2050 – Das Ende des nachhaltigen Familienbetriebs? Prof. Dr. Johannes Sauer, TUM

Lecture

TUM Campus Weihenstephan & online

www.hef.tum.de/veranstaltungen/hans-eisenmann-akademie-oeffentliche-vortragsreihe

Thu. 20.01.2022

5:30 pm – 7 pm

„Ran an die TUM“: Logik, Analyse und die Gesetze der Natur.

Mathematik und Physik

Lecture

Online

www.schueler.tum.de/ran

Thu. 20.01.2022

6:15 pm – 8 pm

Abenteuer Führung

Advice from Colleagues (in German)

Online

www.community.tum.de/veranstaltungen

Fri.21.01.2022

11 am – 12 pm

Jobhunting with a Strategy

Webinar

www.community.tum.de/veranstaltungen

Mon. 24.01.2022

5 – 8 pm

Bewerben ohne Praxiserfahrung. Wie Sie Arbeitgebende von Ihrem Profil überzeugen.

Webinar

www.community.tum.de/veranstaltungen

Tue. 25.01.2022

6 pm – 7 pm

Promovieren mit Industriebezug – Erfahrungen aus der Praxis

Webinar

www.community.tum.de/veranstaltungen

Tue. 25.01.2022

6:30 pm – 8 pm

Ringvorlesung: „... about being careful. Positionen zum Bestand“

Lecture

Online

www.arc.ed.tum.de/nb/lehre/vorlesung

Wed. 26.01.2022

6 pm – 8 pm

TUM Mentoring Vortrag:
(Mental) Vorbereitet in den Ruhestand

Lecture

TUM Campus Munich

www.community.tum.de/veranstaltungen

Wed. 26.01.2022

7 pm – 8 pm

Meetup für TUM-Gründerinnen und -Gründer

Get-together

Online

www.community.tum.de/veranstaltungen

Thu. 27.01.2022

9 am – 10 am

Q&A zum Thema Job Interview

Webinar

www.community.tum.de/veranstaltungen

Thu. 27.01.2022

10:30 am – 11:30 am

Erwartungen an Young Professional: 11 Kompetenzen, die Sie vorweisen sollten

Webinar

www.community.tum.de/veranstaltungen

Thu. 27.01.2022

12 pm – 2 pm

BewerbungsCheck live

Webinar

www.community.tum.de/veranstaltungen

Thu. 27.01.2022

3 pm – 5 pm

Speed Dating mit Unternehmen

Webinar

www.community.tum.de/veranstaltungen

Thu. 27.01.2022

6 pm – 7:30 pm

Career Lounge: Start-up, Mittelstand oder Großkonzern?

Welches Unternehmen passt zu mir?

Panel

Online

www.community.tum.de/veranstaltungen

Thu. 27.01.2022

5:30 pm – 7 pm

„Ran an die TUM“: Was haben Internet, Roboter und Solaranlagen gemeinsam? Elektrotechnik und Informationstechnik

Lecture

Online

www.schueler.tum.de/ran

Fri.28.01.2022

4 pm – 5 pm

Convincing Cover Letters for Applications in Germany

Webinar

www.community.tum.de/veranstaltungen

Mon. 31.01.2022

5 pm – 8 pm

Potential Analysis. Awareness of your Personal Competence.

Webinar

www.community.tum.de/veranstaltungen

February 2022

Februar 2022

1 pm – 1:30 pm

Virtuelles KarriereCafé

Webinar

www.community.tum.de/veranstaltungen

Tue. 01.02.2022

6 pm – 7 pm

Strategien für berufliche Veränderungen (Alumni Special)

Webinar

www.community.tum.de/veranstaltungen

Wed. 02.02.2022

5 pm – 8 pm

Bewerben 4.0 – Business Networks XING & LinkedIn als digitale Visitenkarte

Webinar

www.community.tum.de/veranstaltungen

Thu. 03.02.2022

5 pm – 8 pm

Gehaltsverhandlung – Mit starken Argumenten überzeugen

Webinar

www.community.tum.de/veranstaltungen

Thu. 03.02.2022

NN

TUM Start-ups: Meet & Talks – Insights from Veronika Riederle, Demodesk Get-together
Online

www.community.tum.de/veranstaltungen

Thu. 03.02.2022

5:30 pm – 7 pm

„Ran an die TUM“: Informatik verwandelt die Welt – gestalten Sie mit! Informatik Lecture
online

www.schueler.tum.de/ran

Fri.04.02.2022

4 pm – 5 pm

Convincing CVs for PhD Students & Postdocs
Webinar

www.community.tum.de/veranstaltungen

Mon. 07.02.2022

2 pm – 4 pm

Studium (fast) fertig – und nun? Webinar

www.community.tum.de/veranstaltungen

Mon. 07.02.2022

5 pm – 7 pm

Vortragsreihe Energiesysteme und Energietechnik
Lecture

TUM Campus Garching & online
www.mw.tum.de/es/aktuelles/events

Mon. 07.02.2022

6 pm – 7 pm

Berufsfelder im Fokus – Forschung & Entwicklung
Webinar

www.community.tum.de/veranstaltungen

Tue. 08.02.2022

4 pm – 5 pm

Personalized CVs for Applications in Germany
Webinar

www.community.tum.de/veranstaltungen

Tue. 08.02.2022

5 pm – 8 pm

Your first Work Contract: Stay save on the legal aspects of your first job
Webinar

www.community.tum.de/veranstaltungen

Wed. 09.02.2022

11 am – 12 pm

Effiziente Jobsuche für Promovierende und Postdocs
Webinar

www.community.tum.de/veranstaltungen

Thu. 10.02.2022

5 pm – 8 pm

Job Interviews in Germany. Convince with authenticity.
Webinar

www.community.tum.de/veranstaltungen

Thu. 10.02.2022

5:30 pm – 7 pm

„Ran an die TUM“: Humanmedizin an der TUM – eine Besonderheit. Medizin Lecture
Online

www.schueler.tum.de/ran

Thu. 17.02.2022

5:30 pm – 7 pm

„Ran an die TUM“: Where management meets technology. Wirtschaftswissenschaften
Lecture
Online

www.schueler.tum.de/ran

Wed. 23.02.2022

7 pm – 8 pm

Meetup für TUM-Gründerinnen und -Gründer
Get-together
Online

www.community.tum.de/veranstaltungen

Thu. 24.02.2022

5:30 pm – 7 pm

„Ran an die TUM“: Und nach der Schule veränderst du die Welt! Maschinenwesen
Lecture
Online

www.schueler.tum.de/ran

Mon. 28.02.2022

5 pm – 7 pm

Vortragsreihe Energiesysteme und Energietechnik
Lecture

TUM Campus Garching & online

www.mw.tum.de/es/aktuelles/events

March 2022

März 2022

Münchener Tage für Nachhaltiges Landmanagement
Fortbildung
Oskar von Miller Forum

www.asg.ed.tum.de/bole/veranstaltungen/muenchener-tage-fuer-nachhaltiges-landmanagement

Wed. 02.03.2022

1 pm – 1:30 pm

Virtuelles KarriereCafé: Jobentscheidungen treffen
Webinar

www.community.tum.de/veranstaltungen

Thu. 03.03.2022

5:30 pm – 7 pm

„Ran an die TUM“: Ingenieurwissenschaften – ein Studium, alle Möglichkeiten. Engineering
Lecture
Online

www.schueler.tum.de/ran

Mon. 14.03.2022

4 pm – 5 pm

Mit Bewerbungsanschreiben überzeugen
Webinar

www.community.tum.de/veranstaltungen

Thu. 17.03.2022

11 am – 12 pm

Lebensläufe individuell gestalten
Webinar

www.community.tum.de/veranstaltungen

Thu. 17.03.2022

6:15 pm – 7:30 pm

Abenteuer Führung
Advice from Colleagues (in German)
Online

www.community.tum.de/veranstaltungen

Tue. 22.03.2022

12 pm – 1 pm

Career Planning. Defining and Planning a Successful Career
Webinar

www.community.tum.de/veranstaltungen

Wed. 23.03.2022

6 pm – 7:30 pm

Abenteuer Berufseinstieg
Advice from Colleagues (in German)
Online

www.community.tum.de/veranstaltungen

Thu. 24.03.2022

10 am – 11 am

Convincing Cover Letters for Applications in Germany
Webinar

www.community.tum.de/veranstaltungen

Mon. 28.03.2022

5 pm – 7 pm

Vortragsreihe Energiesysteme und Energietechnik
Lecture

TUM Campus Garching & online

www.mw.tum.de/es/aktuelles/events

Mon. 28.03.2022 + Tue. 29.03.2022

12 pm – 6 pm, 9 am – 6 pm

Münchener GI-Runde
Seminar

TUM Campus Munich

www.asg.ed.tum.de/gis/runder-tisch-gis-ev

Wed. 30.03.2022

7 pm – 8 pm

Meetup für TUM-Gründerinnen und -Gründer
Get-together
Online

www.community.tum.de/veranstaltungen

Thu. 31.03.2022

5:30 pm – 7 pm

„Ran an die TUM“: Mission Earth: Study Aerospace. Luft- und Raumfahrt
Lecture
Online

www.schueler.tum.de/ran

Osterferien 2022

all day

Schnupperstudium an der Fakultät EI für Schülerinnen und Schüler
ab Klasse 10
Orientation
Online

www.ei.tum.de/studium/schnupperstudium

ACHIEVEMENTS in the TUM Community

Positions, Promotions, Awards

As of: September 2021

B

Prof. Dr. Harald Böhm (**Habilitation Sport Science 2018**) was appointed to the Professorship of Biomechanics at the Private University of Applied Sciences in Göttingen in May 2021. Since 2009, he has also been heading the gait analysis laboratory at Orthopädische Kinderklinik in Aschau/Chiemgau.

H

Dr. Andreas Hauptner (**Diploma Physics 1999, Doctorate 2006**) was called to Landshut University of Applied Sciences in April 2021 and is teaching at the Faculty of Interdisciplinary Studies. Previously, he was employed at TUM's Department of Physics.

Wuppertal. She previously led a research group at the Chair of Traffic Engineering and Control at TUM.

D

Alexander Decker (**Master Civil Engineering 2017**) has been the new Director Asset Management at LIP Invest since June 2021. Previously, the real estate economist had worked for Arcadis as a project manager for large-scale projects for several years.

Prof. Dr. Wolfgang A. Herrmann (**Diploma Chemistry 1971**), President Emeritus of TUM, has been awarded the Gold Medal of Denmark's Technical University. He received this honor in particular for his efforts in establishing the EuroTechAlliance, an alliance of six technical universities in Europe and Israel.

Dr. Ralf Kilian (**Diploma Conservation-Restoration, Art Technology and Conservation Science 2004**) has been Professor of 'Präventive Konservierung in der Baudenkmalpflege' (Preventive Conservation in the Preservation of Historic Buildings) at the University of Bamberg since December. Concurrently, he is heading the business unit Cultural Heritage Research at the Fraunhofer Institute for Building Physics.

F

In February 2021, Dr. Christina Fischer (**Master Chemistry 2014, Doctorate 2020**) was appointed Professor of Faunistics and Species Conservation at the Department of Agriculture, Ecotrophology and Landscape Development at Anhalt University of Applied Sciences.

In March 2021, Nadine Hese (**Diploma Management & Technology [TUM-BWL] 2012**) assumed responsibility for the expansion of IWG in Southern Germany as Senior Development Manager. She previously worked for Blackrock, Rock Capital and Kriton.

Since June 2021, Michael Kolahsa (**Diploma Agricultural Sciences 2006**) has been in charge of the Specialist Consulting Service for Fisheries of The Bezirk of Lower Franconia. Before that, he had already served as Deputy Fisheries Advisor for six years.

M

G

Dr. Florian Geistmann (**Diploma Chemistry 1997, Doctorate 2002**) has been the new Managing Director at Shimadzu in Germany since July 2021. He joined the company in 2002 and has held various positions in the German and European operations.

J

Prof. Dr. Mario Jekle (**Doctorate Food Technology 2012, Habilitation 2019**) has accepted tenure at the University of Hohenheim as of August 2021. At the Institute of Food Science and Biotechnology there, he will take over as Head of the Department of Plant-based Foods.

Prof. Dr. Martina Mitterhofer (**Master Consumer Affairs 2012, Doctorate 2016**) has joined Landshut University of Applied Sciences in September 2021. She will be reinforcing the Faculty of Business Administration as Professor of Data-driven Marketing. Prior to this, she was Head of Digital Vision & Transformation at Merkle.

N

K

In April 2021, Dr. Heather Kathz (**Master Transportation Systems 2011, Doctorate 2017**) was appointed Professor of 'Radverkehr' (Bicycle Traffic) at the University of

Martin Neubauer (**Diploma Geodesy and Geoinformation 2008**) has been the new Director of the Land Registry in Miesbach since August 2021. He previously worked at the Bavarian State Ministry of Finance and Homeland Affairs as a representative of the Bavarian Landtag.

Success Stories

Read about the founders and entrepreneurs, researchers and executives from the ranks of TUM in our Alumni Stories.

www.community.tum.de/en/stories

O

Markus Ostertag (*Diploma Informatics 2010*) has been the new CTO of the Munich-based SaaS company Ryte since June 2021. He had previously been CEO at Team Internet AG.

P

Jennifer Padberg (*Master Physics 2018*) has joined the sales team at Factronix in July 2021. Before that, she had been a sales engineer at Hamamatsu Photonics.

Dr. Daniel Paulus (*Diploma Mechanical Engineering 2007, Doctorate 2014*) has been the new Operations Manager of the Waste Management Facility Gelsendienste of the City of Gelsenkirchen since April 2021. In recent years, he has worked as Head of the Waste Management in Munich.

Dr. Jan-Philipp Pfander (*Diploma Biology 1990*) is the new partner in the Zurich office of Proventis Partners. Previously, he has been Managing Director responsible for Chemicals and Materials in the EMEA region at Moelis & Company.

Dr. Joachim Post (*Diploma Mechanical Engineering 2002*) will become a new member of the Board of Management at BMW and will be responsible for the Purchasing and Supplier Network Division as of January 2022. He has been with the BMW Group since 2002 and is currently Head of Product Line Mid-Size BMW.

S

Since August 2021, Uwe Sandner (*Diploma Informatics 2003*) has been strengthening the management team of finleap connect GmbH as its new CTO. Before that, he worked as a Digital Expert Associate Partner at McKinsey.

Thomas Schindlbeck (*Bachelor Renewable Resources 2018*) has been the new Climate Protection Manager at the City of Straubing since July 2021. He previously worked as an engineer for renewable energy systems at Omni Cert Umweltgutachter GmbH.

Dr. Sebastian Seibold (*Master Forest Science 2012, Doctorate 2015*) was awarded the Deutscher Forstwissenschaftspreis (German Forestry Prize) 2021 for his long-standing research on biodiversity in forests. He is the Deputy Head of Research and Monitoring at Nationalpark Berchtesgaden.

Your Spot

Have you received an award or been promoted and want to share the good news with the TUM Community? Then send us an email: alumniundcareer@tum.de

Dr. Andreas Schmid (*Diploma Physics 1999*) is the new CEO of Secop GmbH since August 2021. He has over 20 years of experience as a Board Member and Managing Director and was previously CEO of C. Hübner GmbH.

In March 2021, Dr. Christoph Schmucker (*Diploma Aerospace Engineering 1995, Doctorate 1999*) was appointed Honorary Professor of Information Systems at the University of Applied Sciences Zwickau. He is also Managing Partner of the company BrunataMetrona.

Dr. Stephan Schoft (*Doctorate Electrical Engineering 2007*) has taken over the Professorship for High Voltage Technology and Electromagnetic Compatibility of the Department of Electrical and Computer Engineering at Düsseldorf University of Applied Sciences in

April 2021. He previously worked as a Principal Engineer at ABB AG.

Dr. Karin Sebald (*State Examination Food Chemistry 2013, Doctorate Food Chemistry 2020*) was awarded the Friedrich-Meuser Research Award 2021 for her dissertation.

Dr. Niels Syassen (*Diploma Physics 2003, Doctorate 2008*) has been a new member of Sick's Executive Board since October 2021. He has been in charge of innovations in the field of gas and particle analysis solutions as a member of the Executive Board since 2018.

W

Since October 2021, Jürgen Walter (*Diploma Electrical and Computer Engineering 1995*) has been the new Chief Operating Officer (COO) of the Communications division at Huber+Suhner and has also been appointed a Member of the Executive Management. Previously, he was COO in the Kathrein Mobile Communication business unit within Ericsson.

After four years as Second-in-Command, Christian Webert (*Diploma Forest Science 2000*) will now be heading the office himself: Since September 2021, he has been the new Director of the Holzkirchen Office for Food, Agriculture and Forestry.

Z

Since July 2021, Lena Zoor-Füllgraff (*Master Environmental Planning and Ecological Engineering 2017*) has been Climate Protection Manager for the district of Upper Bavaria. At TUM, she has been employed at the Environmental Research Station Schneefernerhaus and researched climate change and its consequences.

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Pursuant to Article 3 (2) of Germany's Basic Law, men and women have equal rights. All persons and descriptions of functions in KontaktTUM refer in equal measure to men and women. The use of the masculine form alone in some places only serves the text's readability. As of: September 2021.

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”The most
reliable recipe
for **creative
top form** is
someone
who tells me,
‘That’s not
possible.’”

From the alumni survey
More on p. 36



Whether in research, business or everyday life – every act of creativity leaves its mark. The handprint on the cover is from TUM Alumni and Nobel Prize laureate Joachim Frank (Doctorate Physics 1970). In June 2019, he visited TUM, received the honorary title of "TUM Distinguished Affiliated Professor" and – like many other Nobel Prize laureates from TUM – left his mark at the Chair of Metal Forming and Casting.

In this issue, Joachim Frank tells us about creativity in Science.

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F A L L
W I N T E R

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