12th IGSSE Forum

Science without borders

7 - 9 May 2018 | TUM Science and Study Center | Raitenhaslach
IGSSE Forum is supported by

[DFG logo] Deutsche Forschungsgemeinschaft
Dear IGSSE members,

This year’s overarching topic ‘Science without borders’ characterizes a central mission of our graduate school - the scientific collaboration with international research partners. With the qualification program and the recent international call for proposals we strengthen the interdisciplinary research pillar of IGSSE and initiate TUM collaborations across the globe.

Especially long-term research stays abroad enrich the professional as well as personal development and networks of all of us. That is why they are part of the IGSSE Qualification Program. Alumni like Prof. Dominik Schillinger (Alumnus 2012) feel that this collaboration experience has been a boost to their career, others, like Prof. Christian Cyron (Alumnus 2012), encountered new research areas then and are key players in these fields today. I am very happy that the number of these stays powered by IGSSE is already rich, continuously grows and sees IGSSE doctoral researchers visiting top-level research institutions like Caltech, MIT, ETH Zurich, Cambridge or Tokyo University.

Regarding our research portfolio, the 2018 call for proposals has been, for the first time, especially focused on strengthening TUM collaborations with the University of Queensland, Australia, in the field of Life Sciences and with the University of Texas at Austin, USA, in the field of Computational Sciences and Engineering. We also initiated new bonds to the University of São Paulo, Brazil, within the same call. I am looking forward to see many excellent, new international project teams starting their work later this year.

For this IGSSE Forum, I am delighted that with Prof. Martin Bendsøe, Prof. Josef Rauschecker and your peers from the EuroTech Universities Alliance we will have a broad range of perspectives on the opportunities that lie in crossing national borders for scientific purposes. The workshop portfolio complements these views by offering diverse inputs, ranging from getting actively involved in TUM’s Africa engagement, to communication in international business settings, EU funding opportunities and scientific impact tools to entrepreneurship in an international context.

Seize the opportunity to broaden your horizon and go international! I am looking forward to welcoming you at the TUM Science and Study Center in Raitenhaslach.

Cordially yours

Barbara Wohlmuth
12th IGSSE Forum | Science without borders

Program

Monday, 7 May

10:00  Arrival & baggage drop-off Raitenhaslach
10:15  Welcome: IGSSE Director Prof. Barbara Wohlmuth
10:45  Keynote: If you want to go fast, go alone. If you want to go far, go together.
       Prof. Martin P. Bendsøe, DTU/Denmark
11:45  Poster session & lunch
14:00  Workshops Part I
16:30  Poster presentations
17:00  IGSSE bowl
18:30  BBQ
21:00  Hotel shuttle & check-in hotels

Tuesday, 8 May

09:00  EuroTech peer perspectives, Moderation: Emily Palmer, Head of EuroTech
       Universities Alliance Office, Brussels and Dr. Michael Klimke, IGSSE Managing
       Director
10:00  Workshops Part II
13:00  Lunch
14:00  Workshops Part III
18:00  Reception at Kloster gasthof Raitenhaslach
19:00  Festive dinner
20:30  Speech TUM Senior Vice President Prof. Claudia Peus and certificate ceremony
22:30  Hotel shuttle 1
23:30  Hotel shuttle 2
00:30  Hotel shuttle 3

Wednesday, 9 May

08:00  Hotel check-out
09:00  Election of new PhD representatives
09:30  Career fair pitch
10:00  Career fair & Career café
12:00  Lunch
13:00  Keynote: International careers in science - while staying in touch with Germany
       Prof. Josef Rauschecker, Georgetown University/USA
14:00  Wrap up and farewell: IGSSE Director Prof. Barbara Wohlmuth
14:30  Departure

Please note
Photos and videos will be taken during the event. All pictures and videos will be used for IGSSE-related purposes only. Please inform the IGSSE team if you mind being seen in respective media.
Poster session
Monday, 11:45 hrs

The poster session serves as a scientific exchange platform and is the 1st stage of this year’s poster competition. To rate a presentation (scientifically well-designed, easy to understand, interesting topic)
- each doctoral researcher receives 3 red stickers,
- he/ she places red stickers to his/ her best-liked poster,
- stickers may be distributed to three, two or one poster,
- stickers have to be placed until 14:00 hrs.

Poster presentations
Monday, 16:30 hrs

The poster presentations are the 2nd stage of the poster competition, in which
- the five best-rated posters are presented in a 3-minute Posterblitz by one team member,
- all attendees cast one vote each to produce the winning poster.
The winning team will be decorated during the course of the festive dinner on 8 May.

Keynotes and talks

If you want to go fast, go alone. If you want to go far, go together.
Prof. Martin P. Bendsøe | Special Advisor to the president DTU/Denmark
Monday, 10:45 hrs

Prof. Bendsøe stepped down as Senior Vice President at the Technical University of Denmark in the beginning of 2017 and now serves as a Special Advisor to the president. He received his M.Sc. in mathematics and physics at the University of Copenhagen in 1979, his Ph.D. in applied mathematics at DTU in 1983, and in 1995 he defended his Dr.Techn. degree. In 2010 he received the Doctor honoris causa (Dr.h.c.) from University of Liège, Belgium, for his contributions to computational mechanics. As a Senior Vice President at DTU 2009-17, Prof. Bendsøe was responsible for graduate studies (MSc and PhD) as well as international affairs. He has been responsible for building the international joint MSc and PhD programs at DTU and for boosting the exchange programs; in this process – and as teacher/researcher - he has visited more than 125 universities in 25 countries. Prof. Bendsøe has been member of the TUM Graduate School and IGSSE Scientific Council since 2009.
EuroTech peer perspectives
Moderators:
Emily Palmer | Head of EuroTech Universities Alliance Office Brussels
Dr. Michael Klimke | IGSSE Managing Director
Peers:
Cornel Fink | Chemistry and Chemical Engineering | EPF Lausanne/Switzerland
Patricia Renck Nunes | Molecular Life Sciences | EPF Lausanne/Switzerland
Raju Kumar | Physics | Technical University of Denmark, DTU
Tuesday, 09:00 hrs

Dinner speach by TUM Senior Vice President Prof. Claudia Peus
Tuesday, 20:30 hrs

Prof. Peus earned her PhD at LMU Munich in 2005. Later she was a visiting scholar at the Sloan School of Management of the MIT as well as a post-doctoral fellow at Harvard University/USA. She returned to LMU in 2007 as Project Manager for the Center for Leadership and People Management and acquired her habilitation. In 2011 she was appointed Professor of Research and Scientific Management at TUM. Since 2017 she has been Senior Vice President Talent Management and Diversity. Prof. Peus research focuses primarily on the human, organizational and corporate factors that influence effective leadership in science and the economy.

International careers in science - while staying in touch with Germany
Prof. Josef Rauschecker | TUM-IAS Fellow, Georgetown University/USA
Wednesday, 13:00 hrs

Prof. Rauschecker studied at TUM and LMU Munich (Electrical Engineering and Medicine) as well as at the Universities of Sussex and Cambridge, England (Artificial Intelligence and Physiology). He received his Ph.D. (Dr.-Ing.) from TUM in 1980 and habilitated in 1985 at Eberhard Karls University in Tübingen. After working as a staff scientist at the MPI for Biological Cybernetics from 1981-1989, he joined the National Institute of Mental Health (USA) as a senior investigator in the Laboratories of Neuropsychology and Neurophysiology in 1989. Since 1995, he has been a Professor of Physiology and Biophysics, Neurology, and Neuroscience at Georgetown University. Prof. Rauschecker is the director of the Laboratory of Integrative Neuroscience and Cognition (LINC) as well as of Georgetown University and Howard University’s international education and research program in Cognitive and Computational Systems (PICCS). Prof. Rauschecker is a TUM-IAS Hans Fischer Senior Fellow as well as IGSSE Principal Investigator to team 11.09 INTERACT.
Workshops
Monday, 14:00 - 16:00 hrs and Tuesday, 10:00 - 17:00 hrs

1. Forging sustainable research relationships with international partners in Africa

Katharina Klohe, Dr. Michael Klimke, Maya Schmitt, Kathrin Schmitt | TUM

Invited experts:
Prof. Dr. Clarissa Prazeres da Costa | Center for Global Health at TUM
Dr. Emnet Woldegiorgis et al. | Bayreuth International Graduate School of African Studies

Fostering interdisciplinary research projects and expanding the horizons of early-stage researchers towards working with and in international contexts necessitate a platform for multi-actor exchange. The workshop will set the stage for a summer school in Kenya (2019) addressing the topic of “One Health, access to Health (1Ha2H)”. Focusing on aspects of human, animal and environmental health, various IGSSE-related disciplines such as medicine, natural and life sciences, social sciences, architecture, ICT and engineering will engage in dialogue. Consequently, 1Ha2H will serve as a prism to equip candidates with underlying research and transferable skills by

- putting together a multi-faceted, interdisciplinary project proposal – from the initial idea to the actual proposal as well as implementation;
- broadening research collaboration and identifying stakeholder interests;
- reflecting on ethical and cultural issues related to so-called North-South collaboration;
- and (time permitting) preparing for and participating in a joint summer school on a topic with high political, economic and scientific importance.

It is intended that workshop participants continue their work after the Forum (i.e. in a creditable IGSSE iii workshop) and refine the plans in cooperation with the IGSSE leadership as well as Kenyan and German partners. Ideally, two messengers will undertake a fact-finding mission to Kenya in the course of 2018.

2. Crossing borders: Career options in international frameworks

Part 1 Your international career - Gaining from TUM’s strategic internationalization
Bettina Burger | Senior International Strategist | TUM International Center
Dr. Dominik Beisser | TUM International Center

The workshop will look at the interplay between institutional internationalization at TUM and the individual international exposure and experiences of young researchers. In particular, the workshop will give an overview on elements of TUM’s internationalization strategy including the strategic alliances, liaison offices abroad and the TUM Global Incentive Fund, and related
opportunities in the academic, professional and personal development of young researchers. In the second part of the workshop, participants will be invited to share their expectations and demands for shaping an international enriched career, and to develop ideas for how to further escalate the international portfolio of TUM.

**Part 2** Working in an interdisciplinary, international environment - Careers at the European Patent Office (EPO)

*Dr. Raoul de Waha | Former Director of the European Patent Office Munich*

The EPO is the second-largest European organisation, employing about 7,000 staff from over 30 countries. It is the executive arm of the European Patent Organisation and headquartered in Munich, with a branch in The Hague, offices in Berlin and Vienna, and a liaison office in Brussels. In this workshop, you will get first-hand insights into the prerequisites, opportunities and expectations of careers at the EPO.

**Part 3** Careers in international organizations

*Julie Tumler | Senior Placement Officer at the Bureau for International Organisation’s Personnel*

In close cooperation with the Federal Foreign Office and the Federal Ministry for Economic Cooperation and Development the Bureau for International Organisation’s Personnel (BFIO) supports the Federal Government with its range of measures to increase the number of German employees in international organisations. To be able to work on the whole range of global issues, international organisations are looking for highly qualified and internationally oriented employees of various disciplines. This workshop will give an overview of career opportunities in international organisations, with a special focus on candidates with a background in science and engineering. After the workshop, participants will have

- a better understanding of diverse fields of work
- an overview of the various stages of the application process
- insights of how their scientific experience translates into the expectations of the organisations
- insights into the different test methods and how to ace them
- gotten impulses on how to best present their competencies in an interview.

3. Opportunities for researchers in the EU context

*Emily Palmer | Head of EuroTech Universities Alliance Office Brussels*

*Maria-Valerie Schegk | TUM Liaison Officer, Brussels*

*Barbara Spano | Senior Consultant, Office for Research and Relations, DTU*

*Sabrina Schulze | Coordinator Entrepreneurship Culture & Internationalization, TUM ForTe*

Europe – a continent of opportunities: what’s on offer for young research talent? Addressing today’s global challenges requires new ambitions of research and innovation that are increasingly collaborative and interdisciplinary. With the biggest international research and innovation programme in the world, the European Union is an important player in this agenda.
and universities are key recipients of EU funding. Strongly embedded in their local ecosystems, universities play an important role in connecting actors from different sectors and are the main drivers in developing opportunities connecting education, research and innovation. The workshop will focus on the unique European offer for young research talent to develop more international and entrepreneurial career paths. Participants will also gain insight into how they can specifically benefit from TUM’s strategic alliances.

4. Networking for academics: The skill that will boost your international career

Dr. Aina Astudillo | Focus Research

A good international network and great networking skills are the key to turning your PhD into a fulfilling and productive professional experience. This training aims at teaching participants how to effectively build, grow and sustain a reliable network that will help them achieve their career goals (in academic research or in the industry). To do so, we will focus on situations that are part of everyday academic life in an international context, such as conferences, workshops or poster presentations. We will also cover tips and tricks to make the most out of social networks such as Research Gate and Linked-in. The participants should leave with the desire, the confidence and the keys to network in the most natural and effective way possible. Participants are invited to open a linked in/research gate account, in case they do not already have one. This is not mandatory but might help in profiting from the last part of the training.

5. Intercultural communication skills - opportunities and challenges

Maria Prahl | Working Between Cultures

Cross-cultural collaboration in international teams is becoming a crucial everyday part of scientific working environments. It brings numerous benefits, but often leads to misunderstandings, irritation and resulting conflicts that can hinder productivity. The aim of the training is to improve communication skills from an intercultural perspective. To achieve this goal, we will work with science-based models, short lectures and numerous exercises with a strong focus on the relevance for your professional and daily life. Course content:

• engage individually with our own cultural backgrounds and their impact on intercultural communication,
• self-assessment of intercultural competences and potential pitfalls,
• develop strategies for difficult situations in international settings.

After this workshop you will

• be able to better adapt your communication styles,
• know strategies to deal with intercultural situations,
• have the basics to feel more secure when intercultural situations in your work occur.
6. Effective negotiation tools in international industry settings

Dr. Peter O. Hahn | Hahn Culture.Consulting

Globalization is the trend of increasing interaction between people and business on a worldwide scale. It accelerated with the steamship and telegraph (mid 1880) due to advances in communication and transportation technologies. Currently it is boosted by big data via internet. If you opt for a career in industry today, you will most likely have to work together with international suppliers, customers as well as colleagues. Subsequently, you will have intense contact with different cultures and communication strategies. You may even have to work as expatriate abroad. In any case, conferences, online meetings, and business trips will be part of your daily routine. Cultural differences and peculiarities have a strong impact on management structures, negotiation, and communication styles in respective countries. In this workshop, you will be sensitized on culture dimensions, negotiation, the art of communication, and on the five essential management functions: organization, planning, human resources, leadership, and controlling all in context of different cultural values. The knowledge and the awareness of cultural peculiarities will empower you to communicate and negotiate successfully with colleagues and business partners around the world.

7. Impact and open science

Dr. Marcel Hebing | Executive Manager, Impact Distillery
Larissa Wunderlich | Creative Director, Impact Distillery

This training looks at Open Science as a way to foster research integrity, collaboration, and knowledge transfer. It is split in three consecutive workshops: Part 1 covers current trends in research, publishing, and research evaluation, part 2 covers best practices for open science and data management, and part 3 gives practical advice for visual communication in research. The training is designed to provide participants with an overview of current trends in research as well as the knowledge necessary to increase the quality and impact of their research. It is aimed at up-and-coming researchers from all disciplines who work in an international environment. The workshops are interactive and practically oriented. In the course of the training, participants develop an impact strategy tailored to their own research.

**Part 1 Trends in Research, Publishing, and Evaluation**

The aim of this session is to convey to participants a comprehensive picture on current trends in research, publishing and evaluation. During the workshop, participants develop a stakeholder map for their research in an increasingly diverse environment.

**Part 2 Open Science and Data Management**

The aim of this session is to convey to participants basic knowledge about data management along the research data lifecycle. They will furthermore learn about best practices for openness
in research. During the workshop, participants will apply open science principles strategically to increase the impact of their work.

**Part 3 Visual Communication in Research**

The aim of the session is to convey to participants basic knowledge about visual communication in research. This includes information visualization in print products, presentations, and digital media. During the workshop, participants will conceptualize a visual product for their own research.

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8. International visibility of your research - bibliometrics and publication strategies

**Birgid Schlindwein** | TUM Library

How can you make sure that you get credit for all of your scientific publications? What is your research impact and how can you influence your h-index? How can you use academic identity management and social media for improving your presence on the internet? The workshop gives an overview of different issues with scholarly publication and improvement of research visibility and impact. The workshop covers the topics

- citation analysis
- current awareness - how to keep up-to-date in your research area
- publication strategies - how to find the right journal for publishing
- search engine optimization for your publications

After an introduction to the topics you will deepen your knowledge using the different platforms in the internet and discussing the pros and cons.

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9. Startup your research!

**Bianca Zwiebler-Schmalz** | UnternehmerTUM

Which entrepreneurial opportunities exist for your research topic globally? Before you develop your idea to market readiness, brainstorm a startup name, spend a lot of money for filing patents and hiring employees - make sure that you identify your entrepreneurial opportunities in this workshop. Discovering multiple market opportunities is very important for you, because not all chances are alike. Some have greater growth potential, whereas others face much less competition, and again others are just markets that one should avoid as they are difficult and costly to enter. You will learn from successful spinoffs of international universities, discover potential application fields and customers for your idea using the lean startup approach and design thinking principles. The desired outcome is a market opportunity set for your idea from research. Moreover you will have the opportunity to pitch your idea and opportunity set to one TUM Startup Consultant and get valuable feedback for your next move.
Career fair & Career café
Wednesday, 10:00 - 12:00 hrs

Meet representatives of companies and institutions looking for interdisciplinary trained employees at our 2nd Career fair. Talk also to the representatives of TUM’s talent factory and the Max Planck Society who complement these offers with information on careers academia. In addition, IGSSE Alumni are happy to talk about their career paths after their doctorate. Meet them at our Career café, place and time will be announced on-site.

fortiss GmbH
Dr. Hao Shen (meet also at Career café)

fortiss is the research institute of the Free State of Bavaria for software-intensive systems and services with headquarters in Munich. The institute collaborates on research, development and transfer projects with universities and technology companies in Bavaria, Germany and Europe. Its shareholders are the Free State of Bavaria (as majority shareholder) and the Fraunhofer Society for the Promotion of Applied Research.

Evonik Industries
Dr. Sarah Hintermeyer (meet also at Career café)

Evonik is one of the world’s leading specialty chemicals companies. The central elements of our strategy for sustained value creation are profitable growth, efficiency and values. Around 80 percent of sales come from market-leading positions, which we are systematically expanding. We concentrate on high-growth megatrends, especially health, nutrition, resource efficiency and globalization.

Infineon
Dr. Dan Popescu (meet also at Career café)
Dr. Andreas Reitinger (meet also at Career café)

Infineon designs, develops, manufactures and markets a broad range of semiconductors and system solutions. The focus of its activities is on automotive electronics, industrial electronics, RF applications, mobile devices and hardware-based security. Infineon’s components play an essential role wherever energy is generated, transmitted and used efficiently. Furthermore, they safeguard data communication, improve safety on roads and reduce vehicles’ CO2 emissions.
Merck
Dr. Tobias Helbich (meet also at Career Café) | Kerstin Zimmer

Merck is a global science and technology company with a passion for forward-thinking discoveries. We want to develop products and solutions for a better life. That’s why we take a closer look at things, ask questions and think ahead. We’ve been around for 350 years. Since then, we have become a truly global company, with 50,000 employees in 66 countries.

Staburo GmbH
Dr. Michael Matiu (meet also at Career Café)

We are a Munich-based biostatistics service provider, specialized in statistical consulting and statistical programming for clinical trials. Staburo offers high-quality statistical services for pharmaceutical, CRO and biotech companies. We are a reliable and flexible partner and provide advanced statistical solutions, like cross-over correction, high-dimensional biomarker analysis and bayesian modeling.

TNG Technology Consulting GmbH
Dr. Gerrit Buse (meet also at Career Café) | Anneke Guhn

TNG Technology Consulting is a value-based consulting partnership focused on high end information technology. We support our customers with services in three areas: Agile Software Development, Administration & Operations and IT Management. In Munich and the metropolitan area, we develop IT projects in various sectors, technologies and roles with around 280 employees. We are constantly looking for experienced specialists and graduates with a proven academic record who wish to join us.

Clariant Produkte GmbH
Dr. Jörg Appel | Priscilla Capelatto

Clariant is a globally leading specialty chemicals company, based in Muttenz near Basel/Switzerland. On 31 December 2017 the company employed a total workforce of 18 135. In the financial year 2017, Clariant recorded sales of CHF 6.377 billion for its continuing businesses. The company reports in four business areas: Care Chemicals, Catalysis, Natural Resources, and Plastics & Coatings. Clariant’s corporate strategy is based on five pillars: focus on innovation through R&D, add value with sustainability, reposition portfolio, intensify growth, and increase profitability.

BFIO - Büro Führungskräfte zu internationalen Organisationen
Julie Tumler

With its services, the BFIO supports the objective of the Federal Government of Germany to increase the number of German nationals in international organisations. We offer advice to candidates during application processes in cooperation with the Federal Foreign Office and administer the German Junior Professional Officer Programme (JPO) under the auspices of the Federal Ministry of Economic Cooperation and Development.

TUM Talent Factory
Neele Meyer

The TUM Talent Factory's services support talented young TUM scientists with
• individual assistance in selecting suitable national and international funding instruments (including from the Alexander von Humboldt Foundation (AvH), the German Academic Exchange Service (DAAD), the DFG and Marie Skłodowska-Curie Actions (MSCA))
• feedback for those submitting their first proposals, including proposal advice from TUM meriti of Excellence
• events and workshops.

BayFOR GmbH
Gabriele Blumberger

BayFOR is a company funded by the State of Bavaria which supports Bavarian universities and SMEs in applying for European funding and carrying out research and innovation projects (www.bayfor.org). BayFOR is a partner in the Bavarian Research and Innovation Agency (www.bayfia.de) and the Enterprise Europe Network (http://een.ec.europa.eu). Gabriela Blumberger, MBA, is a Scientific Officer responsible for Initial Training Network programmes under Horizon 2020 and managing the EU project INNOVIP (www.innovip-h2020.eu).
At 84 Max Planck Institutes and research facilities scientists are conducting basic research in the natural sciences, life sciences and humanities. The Max Planck Society has produced 18 Nobel Prize winners from its ranks since its inception in 1948. The MPG is the international flagship of German research: as well as five Institutes abroad, it runs 17 Max Planck Centers with partners such as Princeton in the USA, Science Po in France, University College London, UK, or the University of Tokyo in Japan. Funded in equal measure by the Federal and State Governments, the Max Planck Society enjoyed basic funding of around 1.8 billion euros in 2017.
Transportation

Monday, 7 May
07:30 Departure coach from Freising, main train station, Bahnhofsplatz
08:00 Departure coach from Garching, Boltzmannstr. 17
08:00 Departure two coaches from Munich, Arcisstr. 21/ TUM main entrance
21:00 Hotel shuttle from TUM Science and Study Center

Tuesday, 8 May
08:30 Hotel shuttle to TUM Science and Study Center
22:30 Hotel shuttle from TUM Science and Study Center
23:30 Hotel shuttle from TUM Science and Study Center
00:30 Hotel shuttle from TUM Science and Study Center

Wednesday, 9 May
08:30 Hotel shuttle to TUM Science and Study Center
14:30 Departure coaches to Munich, Garching, Freising
City map of Burghausen

The black arrow on the left indicates the direction to the TUM Science and Study Center.
IGSSE Team

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