

**CONTENTS**
**RESEARCH**
[Healthy air in beehives?](#)
**NOBELPREISTRÄGER ZU GAST**
[On the beauty and precision in the small nature](#)
**EXHIBITION**
[„Women in Mathematics throughout Europe“](#)
**STUDIES**
[„Computational Modeling and Simulation“](#)
**EVENTS**
[Tuesday After Work Mixer at the IKTP](#)
[Future Lab 5](#)
**AWARDS**
[Young talent award for Dr. Sebastian Trautmann](#)
**CURRENT CALLS**
[Student Research Expo 2018](#)
[7. National German Sustainability Award](#)
**FORSCHUNG**


*The researchers of TU Dresden managed to identify already 50 different components in the beehive air that is said to have healing powers. © Kristin Recklies*

**Healthy air in beehives? Chemists from TU Dresden analyse the chemical basis of beehive air therapy**

In the last years, many reports on the therapeutic potential of beehive air for bronchitis and asthma patients has been published. Furthermore, beehive air is said to help people with migraine, susceptibility to infection, neurodermatitis, depression and other diseases. A team of researchers of TU Dresden now analysed the beehive air in a scientific study: Professor Karl Speer, DLC Kristin Recklies and student Franziska Kuhn from the Faculty of Chemistry and Food Chemistry. In the beehive air therapy, the patient inhales the air of about 35°C via an inhalation mask, sitting either

outdoors or in a small wooden house. The installed filters hinder bees and pollen to get inside the tube. „Yet, we still need to examine how big the positive influence of silence and balanced life on the countryside is, where the therapy takes place, as well as the calm breathing, and which effect is contributed by the beehive air’s components themselves,“ says Prof. Speer.

He and his team managed to identify as much as 50 different components. Furthermore, they demonstrated that the compounds in the beehive air mainly come from the bee glue (“Propolis”) and beeswax, while the honey in the honeycombs, against former expectations, contributed only a small effect on the hive air. Further studies are to quantify exactly the compounds of the beehive air. In addition, applications used in the beehive air therapy are to be compared with respect to the air supply to the patients.

**NOBELPREISTRÄGER ZU GAST AN DER TU DRESDEN**
**On the beauty and precision in the small nature: more than thousand people applauded Klaus von Klitzing and Ben Feringa**

Audiences of about thousand people listened to, laughed with and applauded the first two “Nobel Laureats at TU Dresden” 2018 in their public lectures. Prof. Klaus von Klitzing, Nobel laureate in Physics for discovering the quantum Hall effect, engaged only one physical formula during the whole evening of 11 April, explaining and visualizing to the audience of experts and lays, from students through to retired professors, the effects of his physical finding: the von Klitzing constant. The discovery, von Klitzing pointed out, had been given to him by coincidence: at 2 o’ clock in the night, during completely different experiments. “All my successes had come from scientific detours, when I was able to do free research,“ said von Klitzing. Thence, freedom in science is an essential pillar of good research for the director at the Max Planck Institute for Solid State Research.



*About a thousand listeners were fascinated by the kilogram’s physical revolution by Klaus von Klitzing. © Robert Lohse*



*Ben Feringa shared his enthusiasm for the beauty of molecules and his dedication for science with the Dresden audience. © Sven Döring*

The same is true for Ben Feringa, Nobel laureate in Chemistry and the second laureate to speak in the Dresden public lecture series. His lecture and research titled "The Art of Building Small" are a tribute to the creative power of "Mother Nature", as he quotes frequently. Starting from the nano particles of our world, the researcher constructs new stones for the building block of life: Among them, the molecular motors and cars for which he was awarded the Nobel Prize in Chemistry in 2016. He shared his developments with a fascinated audience on 18 April in vivid model animations. "The beauty of science" is what strives Feringa to go forth, drawn from the beauty of nature in its smallest components: for example from the first molecule he ever built. "It was completely useless", so he likes to laugh out, "but nobody had ever built this one before me, and it was the most beautiful molecule in the world!" In his lecture as well as in his teaching activities in the Netherlands, Feringa is dedicated to passing on this enthusiasm for scientific work.

Universities should be playgrounds, for trying, for investigating unexpected discoveries. More information and photo galleries of the lectures can be found [here](#) for Klaus von Klitzing and [here](#) for Ben Feringa.

## EXHIBITION

### **„Women in Mathematics throughout Europe“ – travelling exhibition in Willers-Bau**



*The exhibition shows portraits and stories of thirteen European female mathematicians at different steps of their career. © Nicole Gierig*

On 17 April, the travelling exhibition "Women in Mathematics throughout Europe – A gallery of portraits" was inaugurated in Willers-Bau. The Vice-Rector of Academic and International Affairs Prof. Dr. Hans-Georg Krauthäuser and the Dean of the Faculty of Mathematics Prof. Dr. Axel Voigt welcomed the more than 100 guests. A trio of mathematics students created a festive atmosphere with interludes of classical music. Mrs. Dr. Sara Azzali, University of Potsdam and curator of the exhibition, presented the history of the travelling exhibition, which started in Berlin 2016. She also gave imposing background information about the 13 portraits of contemporary European female mathematicians. [www.womeninmath.net](http://www.womeninmath.net)

The English travelling portrait exhibition can be visited in Willers-Bau, first floor, throughout the summer semester.

## STUDIES

### **New interdisciplinary master programme „Computational Modeling and Simulation" for future digitalisation experts**

Starting in winter semester 2018/19, TU Dresden offers a new master programme themed „Computational Modeling and Simulation" that offers an innovative, research-oriented educational profile. The English Master programme is a joint curriculum between the Faculty of Computer Science, the Faculty of Mathematics, and the Center for Molecular and Cellular Bioengineering (CMCB) with participation of the Faculty of Psychology, the Faculty of Medicine, the Faculty of Economics, and the Faculty of Mechanical Engineering. The research-oriented interdisciplinary and international study programme offers application-independent training and specialization in five application-specific tracks, offering unique flexibility to students: medicine, biology, mathematics, engineering sciences, visual data processing and in the modeling of energy markets. The TU Dresden therewith offers an integrated study guide for the education of future



*State-of-the-art technology for the Master Programme: the 3D Virtual Reality CAVE. © Biermann-Jung*

## EVENTS

### **8 May: „CoLABORation -> all in one“ - TUESDAY After Work Mixer at the IKTP**

On 8 May, the TUESDAY After Work Mixer (headed by the Staff Unit Diversity Management) is hosted by the Institute of Nuclear and Particle Physics (IKTP).

Themed „CoLABORation -> all in one“, this mixer offers a workshop especially for all users of the Andreas-Schubert-Bau (ASB), their friends and families to get together and to jointly design a creative installation to be set up in the building.

#### **Programme:**

5 pm Meeting at the entrance of ASB

5.15 pm Speed Dating to get together and find ideas

6 pm Implementing the ideas into a joint design

8 pm Installation of the final product in the ASB

**Please register at:** [Gabriele.Feyler@tu-dresden.de](mailto:Gabriele.Feyler@tu-dresden.de)

## **FUTURE LAB 5**

### **„Responsibility or Comfort Zone?“**

Future Lab #5 is addressing “University Culture” at TU Dresden. This Future Lab offers a platform, through which a number of topics can be discussed: **responsibility, cultural values, identification** with TU Dresden, **leadership culture** and **communication, co-operation** and the **future development** of TU Dresden.

**Thursday, 17 May 2018,  
9 am -1 pm / Festsaal Dülferstraße**

**For more information and registration (starting 3th May):**

<https://tu-dresden.de/zukunftslabore>

digitalisation experts with exciting professional fields in personalized future medicine, industry 4.0, autonomous driving and energy transition. *Applications for the master programme can now be submitted.*

## AWARDS

### **Young Talent Award for Dr. Sebastian Trautmann**

Dr. Sebastian Trautmann, research and teaching associate at the Institute of Clinical Psychology and Psychotherapy, Chair of Behavioural Epidemiology, was awarded the Young Talent Award 2018 of the Norddeutscher Suchtforschungsverbundes e.V. for his scientific work “Biological stress indicators as risk markers for increased alcohol use following traumatic experiences”. The prize with a value of 500€ was awarded on the occasion of the 24. Scientific Symposium in Hanover on 18 April 2018.

## CURRENT CALLS

### **Student Research Expo - Call for Contributions**

No matter if it is during undergraduate or PhD studies – an important part of research at universities is undertaken by students. On 4 July, a committed team of students from TU Dresden, are going to organize an expo dedicated to student research here at TU Dresden. This so-called Student Research Expo 2018 will be primarily hosting a poster exhibition, where participants can introduce their research to a broad audience and get insights into other fields of study. All disciplines are welcome and all students are invited to participate and submit an abstract for a poster contribution. In addition, there will be a poster competition, giving all participants the chance to present their poster within a short 90-seconds pitch. After all, there will be time for discussion and to award the best contributions. Now it is your turn! If you want to present your research at the „Student Research Expo 2018“, feel free to drop us an e-mail by **latest 31 May 2018** at [stufoexpo@mailbox.tu-dresden.de](mailto:stufoexpo@mailbox.tu-dresden.de) with the title and an abstract of your poster contribution (please max. 250 words), as well as your complete name, your field of study and your faculty. Contributions in English are encouraged.

### **7th National German Sustainability Award: In search of solutions for the protection of biodiversity**

The Federal Ministry of Education and Research (BMBF) will focus on the topic of biodiversity in the course of the 7<sup>th</sup> National German Sustainability Award for Research. The jury is in search of research projects that develop approaches for the preservation and sustainable use of biodiversity and that are adaptable for application. Researchers – individuals or groups of German research institutes, universities and companies - are asked to submit their applications until **14 May 2018**. The winners will be awarded on the occasion of the 11. German Sustainability Day in Düsseldorf on 7 December 2018. Participation is free. More information and registration at: <http://www.forschungspreis.de>

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