

International Alumni News University of Bayreuth

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**UNIVERSITÄT
BAYREUTH**

International  fice



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Bayreuth International Summer School 2014

From 14 to 18 July 2014, the International Office (in cooperation with the Campus Akademie) will organise its third „Bayreuth International Summer School“ with 8 courses, each one specialised in a different area of study and research.

All courses will be conducted in English by international guest professors. Participants will have the opportunity to theoretically and practically engage for approximately 6 hours each day in various seminars and discussions and to obtain ECTS.

For more information, please see www.summerschool.uni-bayreuth.de and the flyer or contact the Summer School Team at summerschool@uni-bayreuth.de.



Federal Foreign Minister Dr. Frank Walter Steinmeier visited the University of Dar es Salaam

In the framework of a five-day journey through Africa, Federal Foreign Minister Dr. Frank Walter Steinmeier visited the University of Dar es Salaam.

“It has been a great pleasure for the Tanzanian-German Centre for Postgraduate Studies in Law, TGCL, to welcome the German Foreign Minister at the University of Dar es Salaam”, said Prof. Dr. Ulrike Wanitzek.

During his visit in Dar es Salaam the Federal Foreign Minister emphasised that the TGCL makes an important contribution to the education of executives, who are able to design processes of regional integration as well as numerous changes competently.



The Federal Foreign Minister met the management of the TGCL at the University of Dar es Salaam

Shortened version:

Original version (in German): Press release 54/2014 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2014/054-TGCL.pdf>

Translation: BIAAC

International Business Case Competition 2014



Participants of the international business Case Competition 2014

The International Business Case Competition is an annual event that calls upon teams of undergraduates, from several different disciplines, to reflect upon issues of public interest. They then present the results of this discussion in the form of a business plan. Its 2014 edition took place in the city of Bayreuth, Germany, from the 5th to the 15th January.

Alongside those from the organising institution, the University of Bayreuth (UBT), the event was also attended by students from the University of São Paulo (USP), the University of Illinois (UI) and the Hong Kong University of Science and Technology (HKUST). The 8 participating teams were formed by combining students from all the participating universities, offering the students an opportunity to work in multi-cultural teams, and thus explore alternative perceptions of the challenge at hand.

This year, the theme was “Sustainable concepts for intelligent future vehicle mobility“. With this in mind, the contestants were given the opportunity to visit Brose, Continental and Neue Materialien Bayreuth GmbH, all of which are companies operating within the industry the challenge concerned. As well as these information-gathering visits, which were intended to assist students in producing their business plans, a variety of activities were offered with the aim to provide an insight into local culture and

heritage. The students visited several towns, where they attended local celebrations, tasted typical food and learned about some of the history behind the buildings and monuments by means of guided tours. The 48 contestants were supported by professors from the participating universities, who were available full-time to assist students with any questions they had about their projects. On the final day, the business plans of each of the eight teams were submitted, and the tutors selected four of them to progress to the last round, whereby the remaining teams presented their business plans to a panel comprising of both experts and partners. This took place in the university’s “Auditorium Maximum”.

“Cargo Rope“ was the winning team this time. Its proposal was to improve cargo transport in slums and favelas that already have a cable-car system by attaching a device capable of carrying cargo in the lower part of the cabin, and therefore providing a low-cost and feasible solution, accessible to the local population.

Text: International Office

Even more International: New Professor for Philosophy Prof. Dr. Olivier Roy Spurs on the Strategic Development of the ‘Philosophy & Economics’ Programme

A further step towards the internationalisation of the teaching team in the highly respected and successful bachelors and masters ‘Philosophy & Economics’ programmes at the University of Bayreuth has been taken in the appointment of Prof. Dr. Olivier Roy, as the new Professor for philosophy.

Since October 2013, Prof. Dr. Olivier Roy has been teaching philosophy at the institute for philosophy at the University of Bayreuth. Olivier Roy comes from Québec (Canada), where he studied philosophy (at both masters and bachelors level). From 2004 to 2008 he studied at the Universiteit van Amsterdam, before continuing academic work in Groningen and at the Munich Center for Mathematical Philosophy at the LMU München.

“Thanks to the success of the ‘Philosophy & Economics’ programme and the long tradition of work using interdisciplinary methods, the professional group here in Bayreuth has remarkably potential for innovative and relevant research. I see my appointment as a great opportunity to support the research potential in a manner, which proceeds this tradition, guides it in a new direction and contributes to further development of the traditional interdisciplinary teaching and research of our professional group and the whole University of Bayreuth”, explains Prof. Roy.

Roy’s specialises in logic, game theory and practical philosophy. He is philosophically sophisticated and adept in the use of formal methods in equal measure, and belongs to an increasing number of academics who’s field of expertise straddles philosophy and game theory. He is also a collaborating publisher of a leading international journal of academic philosophy ‘Erkenntnis’.

Since the end of 2013, the Canadian has been living in the Bayreuth area with his partner, who works as the coordinator for Bayreuth’s new food- and health sciences department.

The combination ‘Philosophy & Economics’ is interdisciplinary to its core: students do not experience two separate subjects, but rather one homogenous



Foto © Donal Khosrowi

programme. Philosophers and economists from Bayreuth work together to deliver the course – this mixture is the key to success. The University of Bayreuth repeatedly sets new standards with its interdisciplinary courses of study and was also the first in Germany to offer the bachelors qualification ‘Philosophy & Economics’, when it was established in the 2000/01 winter semester. Today, the “Bayreuth model” is renowned both within Germany and throughout Europe.

Original version (in German): Press release 23/2014 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2014/023-Professor-Olivier-Roy.pdf>

Translation: BIAC

“Lange Nacht der Museen” (Museum Night)

Since 2001, Bayreuth’s museums have regularly been welcoming visitors for the “Lange Nacht der Museen“ (Museum Night). That is one of the highlights of a series of events in the festival city that attracts thousands of late-night tourists from the region year after year.

Night owls with a passion for culture will hopefully be able to enjoy pleasant nighttime temperatures in Bayreuth on 17 May 2014 – one day before “International Museum Day”. They will have access to over 20 museums and other interesting cultural locations in Bayreuth, from the early evening through to 1 am. In addition the standard contents of the museums, various special exhibitions, guided tours and events will be offered.

Whether you choose to step underground into the rock basement of the Bayreuth Catacombs or climb high up the castle tower, stroll through the splendid rooms of the New Palace or allow yourself to be drawn into the exotic plant world of the Ecological Botanical Garden: a diverse cultural, historic and artistic programme awaits.

There are also plenty of interactive delights in store. Visitors can whizz their fingers over the keyboard of an old typewriter, go on a treasure hunt in the Archaeological Museum, slip into a knight’s costume or present their own work of art at the “Glashaus”. A treat for the ears will be provided by suitable music and soundscapes in many of the venues, as well as an organ recital at the Schlosskirche by the regional cantor Christoph Krückl, as well as a sacred recital at the Spitalkirche.

This year’s museum night won’t leave your mouth watering: whether it be a Franconian snack, the obligatory Bratwurst in remembrance of Jean Paul, original Italian delicacies or the Dino-cocktail bar in the gardens of the Urweltmuseum, the culinary adventure promises both excitement and variety.

The organisers are especially proud to welcome last year’s “Stadtschreiber” Volker Strübing, who graces the event with some anecdotes from his humorous and witty writings on his experiences in Bayreuth.

Most of the venues are easily reached by foot, with free shuttle buses running regularly to the more museums in the outskirts.



New Palace

Advanced sales from 5th April 2014

Advanced sales of museum night tickets will open on 5th April 2014 at all participating museums, at the Tourist-Information Centre, Opernstraße 22, Tel (09 21) 88 5 88 and at the theatre box office, Opernstraße 22, Tel (09 21) 6 90 01. The entrance bands cost € 8 (concessions € 5 with pupil-, student-, or disabled person’s ID) on the night or € 7 in advance (concessions € 4).

For further information please visit www.museumsnacht.bayreuth.de

Text:
Stadt Bayreuth
Amt für Öffentlichkeitsarbeit und Stadtkommunikation

Translation: BIAC

New Avenues of Research and Transfer of Knowledge:

The Bavarian Research Institute for African Studies (BRIAS)



Prof. Dr. Uta Feser, President of the University of Neu-Ulm; Prof. Dr. Stefan Leible, President of the University of Bayreuth; Dr. Ludwig Spaenle, Bavarian Minister of State for Education, Culture, Science and Art, ; Prof. Dr. Alfred Forchel, President of the University of Würzburg; Prof. Dr. Walter Schober, President of the Technical University of Ingolstadt (from left).

Photo: Peter Kolb.

“Something quite unique within Germany” – the Bavarian Minister of State Dr. Ludwig Spaenle noted in reference to the Bavarian Research Institute for African Studies (BRIAS for short), the founding of which he attended at the University of Bayreuth. The new institute represents a collaboration between the University of Bayreuth, the University of Würzburg, the Technical University of Ingolstadt and the University of Neu-Ulm, all of whom wish to combine their Africa-related expertise in the form of BRIAS. An agreement cooperation to that effect was signed at the University of Bayreuth. In his speech, Dr. Ludwig Spaenle, on an official visit to the University of Bayreuth as the new Bavarian Minister of State for Education, Culture, Science and Art, emphasised the outstanding academic and political values of the new institute, and that it represents something unique in Europe.

The four cooperating partners, although very different in terms of their academic and organisational structures and priorities, believe their respective African research areas and international contacts with African universities complement one another ex-

cellently. In light of this conviction, Prof. Dr. Walter Schober, President of the Technical University of Ingolstadt, Prof. Dr. Uta Feser, President of the University of Neu-Ulm, Prof. Dr. Alfred Forchel, President of the University of Würzburg, and Prof. Dr. Stefan Leible, President of the University of Bayreuth, wish to actively support the new Bavarian Research Institute (BRIAS) in future.

The University of Bayreuth brings more than 30 African-centred disciplines spread across cultural studies, social sciences-, and humanities to the table, as well as an extensive network of African partner universities. The Technical University of Ingolstadt can boast ten years at the forefront of renewable energy technology, and is looking to explore ways to implement and harness the power of its work in African countries. The University of Neu-Ulm intends to further develop its long-standing cooperation with African partners in the fields of health management. The University of Würzburg is looking to further its research on tropical medicine, tropical biology and natural product chemistry as part of BRIAS.

“In our collaboration we attach great importance to the development and implementation of new research ideas, together with our partners, to fuel the fire of scientific exchange. The nature of BRIAS opens up exciting avenues for interdisciplinary cooperation, including between engineering and cultural studies”, stated the university’s president Prof. Stefan Leible. It is clear even today that Africa is an aspiring continent. Academic, economic and cultural cooperation is set to become more and more important. “A further important task for BRIAS will therefore be the transfer of knowledge and research to those in a position to shape the political and economic landscape”, said the president of the University of Bayreuth, who thanked the Bavarian Ministry of State for Education, Culture, Science and Art for the support in establishing the institute.

All signatories to the agreement of cooperation agreed that the establishment of BRIAS will also open doors on EU level, where external funding for research projects and collaboration could be sought. The new institute will serve to benefit the international profile of the ongoing African research in the State of Bavaria.

Original version (in German): Press release 21/2014 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2014/021-BRIAS-Grueendung.pdf>

Translation: BIAC

Elitenetzwerk Bayern: Research Centre for Bio-Macromolecules Successful on Two Counts



During the course of 2014, the Elitenetzwerk Bayern (ENB) is set to establish four international doctoral colleges and five international research groups in the life-, natural- and engineering sciences. The University of Bayreuth has been on top twice during the selection process. The research centre for bio-macromolecules (BIOmac), has successfully applied to form an international research group, under the leadership of Prof. Dr. Paul Rösch, as well as Dr. Claus Kuhn from the renowned Cold Spring Harbor Laboratory, USA. The centre is in cooperation with the elite programme of study *Macromolecular Science* (Speaker: Vice President Prof. Dr. Hans-Werner Schmidt), which has also been funded by the ENB since 2013. Moreover, the BIOmac is involved in a new international doctoral college supported by the universities of Bayreuth, Erlangen-Nürnberg, Regensburg and Würzburg.

An international research group devoting its time to core research – for example, the investigation of cancer and RNA

The BIOmac research group is devoted to the topic of “Structural Basis of Gene Regulation by Non-

Coding RNA”. The group will start working from September 2014 under the leadership of Dr. Claus Kuhn, who has been involved in structural biological research at the University of Bayreuth for some time. Dr. Kuhn’s working group aims to explain the negative impact of non-coding RNA on malignant cancer, and explore the basics of growing human organs from stem cells. X-ray crystallography will be heavily used in this work. “The research conditions for my work are ideally realised in the research centre for bio-macromolecules at the University of Bayreuth. I am looking forward to the collaboration of the different disciplines within the centre and the university”, said Dr. Kuhn.

International doctoral students push the boundaries of biomedical research, working with two Nobel Prize winners

Alongside the new research group at the University of Bayreuth, also the international doctoral college *Receptor Dynamics: Emerging Paradigms for Novel Drugs* aims to develop new therapies based upon the structure of bio-macromolecules. The spotlight here is on the so-called G-Protein-linked receptors,

the malfunction of which is the cause of a great number of diseases. The effectiveness of most available medication on the market is determined specifically by the effect of these receptors. Professor Robert Lefkowitz (Duke University, USA) and Professor Brian Kobilka (Stanford University, USA) received the Nobel Prize for this discovery and related investigations in 2012. Both researchers are involved with the ENB – doctoral college coordinated by the medical school of the University of Würzburg.

Leading the way internationally in the combination of spectroscopic methods

“The pillar of the University of Bayreuth’s successful application was the establishment of the North Bavarian Centre for high-resolution NMR-Spectroscopy (NZN for short) within the BIOmac research centre, and the resulting knowledge of the three-dimensional structures of bio-macromolecules”, explains Prof. Dr. Paul Rösch, who assisted the application. The NZN is a joint venture by the universities of Bayreuth, Erlangen-Nürnberg, Regensburg and Würzburg, and located in Bayreuth. The new international doctoral college leads directly on from “Leitstrukturen der Zellfunktion”, another successful college led by BIOmac/the University of Bayreuth and funded by the same three North Bavarian universities that came to a close in 2012. “Our double success reflects more than just our careful recruitment strategy here at the University of Bayreuth”, explains Prof. Rösch, “the university is one of just a few worldwide that are ta-

king the lead in the fields of nuclear magnetic resonance (NMR), as well as in X-ray crystallography. These two methods are the only ones that allow us to identify, in detail, the three-dimensional structures of bio-macromolecules. In Bayreuth, the methods are particularly often used within the biochemistry and biopolymer departments and are combined in BIOmac. Such synergies have already led to international recognition, as it has shown the approval for one of the world’s most powerful NMR-Spectrometers to be housed at the research centre.

“BIOmac combines virtually all of the available spectroscopic techniques, and the university seeks to use it to set the tone for research in both structural biology and bio-molecular sciences, which the institution considers to be one of its core strengths”, said Prof. Rösch. This focus bridges the gap between a variety of disciplines: from biochemistry through molecular medicine and food analytics to physics and engineering sciences. It lays an excellent foundation for coordinated collaboration between these fields of research – both on an international level and within the North Bavarian region itself, most notably as part of the TechnologieAllianzOberfranken (TAO).

Original version (in German): Press release 20/2014 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2014/020-Elitenetzwerk-Bayern.pdf>

Translation: BIAC

2014 the International Year of Crystallography gets underway

The general assembly of the United Nations has named 2014 as the “International Year of Crystallography”, “IYCr2014” for short. In its statement, it explained “that our understanding of the physical nature of the world around us is primarily based upon our understanding of crystallography”. At the University of Bayreuth, an interdisciplinary initiative has been established, under the leadership of Prof. Dr. Natalia Dubrovinskaia of the university’s crystallography department. A series of public events are planned, with the aim to spark more general interest



in the potential of research carried out by scientists in the field, reaching out beyond the university itself. The initiative answers the call of the United Nations for the academic- and cultural organizations of its member states, to foster wider public engagement with the importance of crystallography.

Events at the university and in schools

In this vein, 2014 will see a lecture series held at the University of Bayreuth, open not only to academics but also to a wider audience. This will feature

a visit by Prof. Dan Shechtman from Haifa, who was awarded the Nobel Prize for Chemistry in 2011 in recognition of his discovery of quasicrystals. His discovery led to fundamental changes to our understanding of the structure of solids. In addition to this, several events will take place for school children with the theme “Crystallography around us”, both on the university campus and in secondary schools. Trainee teachers of the University of Bayreuth specialising in chemistry will be involved in both the planning and implementation of these.

“Many of the technical or medical discoveries that are simply taken for granted today, would, in fact, be inconceivable without the techniques developed and knowledge gained through crystallography”, explains Prof. Dubrovinskaia. “That is why the International Year of Crystallography is such an important occasion, as it is a way to showcase the groundbreaking scientific and technological contributions of crystallography to a wider audience, particularly school children.

Crystallography techniques are now used in many areas of research. This is obvious simply from the wide range of disciplines involved in the project: representatives of mathematics, physics, chemistry, biochemistry, material sciences and earth sciences. The following scientists are involved: Prof. Natalia Dubrovinskaia and Prof. Dr. Sander van Smaalen (crystallography), Prof. Ingrid Bauer (mathematics), Prof. Dr. Leonid Dubrovinsky (earth sciences), Prof. Stefan Förster (chemistry) and Prof. Dr. Clemens Steegborn (biochemistry).

Opening ceremony in Paris: An international meeting of crystallographers

The official opening ceremony of the IYCr 2014 took place in Paris in January 2014. Crystallography experts and interested parties from all over the world came together, both to look back on 100 years of X-ray crystallography history and to look ahead to its future. Prof. Dubrovinskaia represented the University of Bayreuth at the event. “Over the 100 years since the discovery of X-rays and X-ray diffraction, 28 Nobel Prizes have been awarded to scientists with X-ray-crystallography. That is why UNESCO-General Manager Irina Bokova, described crystallography as a significant innovation of the 20th century in her opening speech”, reported the Bayreuth Heisenberg-Professor. “The ensuing lectures and discussions focussed not only on scientific questions, but also for example Islamic ornamental art and medieval architecture in the light of crystallography and mathematics.”



Prof. Dr. Natalia Dubrovinskaia

The history of crystallography

Crystallography is the branch of science concerned with the structure and properties of crystals. The structure of crystals was deduced for the first time in 1913. They have a very simple rock salt structure, comprising of two atoms. Since that time, our ability to determine the structure of solids developed continuously. This facilitated important advances in the study of the physics of condensed matter, in chemistry and in related technological fields, including the development of semiconductors, superconductors and laser crystals. Moreover, X-ray structural analysis has been of utmost importance in biological research. Since 1959, we have been able to analyse the structure of different biological molecules, for example the carrier of genetic information or the necessary enzymes for metabolism. The structural investigations afford us insights into the process of genetic replication and of protein synthesis in living organisms.

The laboratory for crystallography at the University of Bayreuth

The laboratory will be primarily used to explore the relationship between crystal structures and physical properties. Prof. Dr. Sander van Smaalen is more specifically looking at the phase transitions in low-dimensional electronic and magnetic materials, as well as studies of density of electrons in the understanding of chemical bonds, with a focus on aperiodic crystals, of which quasicrystals are a variety. Prof.

Dr. Natalia Dubrovinskaia is exploring the fundamental questions of material physics and those of applied materials technology under extreme conditions (high-pressure, high and low temperature, magnetic fields, etc.). Her research interests focuses on the high pressure synthesis of new inorganic materials, the development of new scientific methods of high- and ultra-high pressure generation as well as the applications of synchrotron radiation in material science and solid-state physics.

The Bayreuth Laboratory for Crystallography's partners include the Hamburg Synchrotron Radiation Laboratory HASYLAB, the DESY research centre, the ANKA Synchrotron Radiation Facility at the Karlsruhe

he Institute for Technology, the European Synchrotron Radiation Facility ESRF in Grenoble and the Advanced Photon Source at the Argonne National Laboratory in the USA.

Original version (in German): Press release 31/2014 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2014/031-Kristallographie.pdf>

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Discover Our New Web Portal for Bayreuth Alumni

Interaction with fellow alumni, an individual profile, forums on career and scholarship opportunities and news about the Bayreuth International Alumni Network: these are only some of the opportunities offered by the University of Bayreuth's new web portal for international alumni and friends.

We hope that the new portal offers you ample opportunities to stay in touch with the University of Bayreuth and fellow alumni, both on a social and professional level, and look forward to your registration:

<http://www.international-alumni-forum.uni-bayreuth.de/>

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