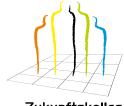
Universität Konstanz

Zukunftskolleg Annual Report 2017 | 2018



Zukunftskollea

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Imprint

Foreword

Foreword





Giovanni Galizia Director of the Zukunftskolleg

Dear reader,

Imagine a place where early career researchers are fully able to concentrate on their research projects. Just think how it would be if they were given the freedom to implement their own research ideas independently, if they were not dependent on a single professor. What if they were also financially independent and provided with enough funds for their research? What if they were able to plan their careers reliably and put energy into their research instead of their next job application? This is the vision we have been pursuing over the course of the last few years.

Our 5i strategy guides our steps as fellows are encouraged to achieve independence early on without having to forego the benefits of being embedded in their respective university departments or cluster of excellence (intra-university), all the while profiting from an intergenerational and international community of researchers from all academic disciplines (interdisciplinary). This strategy was just officially commended in the May evaluation of the Zukunftskolleg. The evaluation details: "All sub-objectives of the 5i strategy have been achieved: The possibility to conduct independent research has been identified as a core and major strength of the Zukunftskolleg".

The evaluation was performed at the close of the EU Marie Curie COFUND Programme. In the context of this programme, we co-funded fellowships over a course of six years with one unique characteristic: Applicants were only accepted if they had been working and living outside Germany for two of the last three years prior to applying. The EU COFUND Programme was essential to increasing the attractiveness of the Zukunftskolleg for international researchers and expanding the institution's internationality. This year we took this development even further and joined both the UBIAS, a global network

of University-based Institutes for Advanced Study, and the NetlAS, Network of European Institutes for Advanced Study. In addition, we introduced a Research Visits Programme that offers our fellows the opportunity to visit institutes abroad while providing early career researchers from around the world the same chance at the Zukunftskolleg. As we begin these new activities, we also work to maintain our existing, long-standing partnerships. I am especially proud that we are now organizing our third workshop with the Martin Buber Society of Fellows in the Humanities (Hebrew University of Jerusalem) this year. The first part of the workshop took place in Konstanz this June; the second part is set in Jerusalem for November.

The field of internationalization demonstrates what runs like a golden thread through the Zukunftskolleg. More than ten years after our inception, we continue to develop our formats and experiment with new ideas while holding fast to proven concepts and learning from our experiences. We trust we have found a good balance between stability and flexibility, continuity and change. This is a task we really enjoy, but that always keeps us on our toes: For this reason, I would especially like to thank the entire Central Office team for the dedication, creativity and motivation with which they seek to put our vision into practice - our fellows truly benefit from your work.

The evaluation confirms we are indeed making our vision a reality: "[T]he Zukunftskolleg is successful in the promotion of young researchers." This conclusion is based on 54 percent of all the Zukunftskolleg's former 5-year fellows subsequently being appointed to full professorships. There are, however, other ways of measuring our success. We aspire to create a place where early career researchers can completely concentrate on their research projects. Why not let our fellows evaluate the realization of our vision? Our 2017|2018 Zukunftskolleg fellows let their experiences speak for themselves as they report on their research projects (highlighted light blue) and the influence the Zukunftskolleg has had on their scientific and personal development (highlighted dark blue).

I hope you enjoy and are inspired by their stories.

Yours sincerely Giovanni Galizia



Fellow Reports

The fellows present at the Zukunftskolleg during the academic year 2017|2018 report on their research projects (highlighted light blue) or the influence the Zukunftskolleg has had on their scientific and personal development (highlighted dark blue).





Carolin Antos Fellow since 07|2016 Dept. of Philosophy



Fellow since 04|2015 Dept. of Physics

Tuhin Basu



Fellow since 04|2016 Dept. of Politics and **Public Administration**

Forcing: Conceptual change in the foundations of mathematics

Can mathematics change at its fundamental basis? This long-standing question has to be reconsidered when studying the mathematical technique of forcing. With forcing one can build an infinite plurality of mathematical worlds and study the differing mathematical truths in them. But forcing is not only a mathematical technique, it can also be used philosophically to explore the foundations of mathematics.

My research project will show that the practice of forcing has led to a conceptual change that introduces a pluralistic understanding of the foundations of mathematics. This change exhibits unique characteristics like its timeliness and the way it came about, namely through the practice, and not merely through the introduction, of a new technique. Both give rise to a conceptual discrepancy in set theory between a pre-forcing self-image and a post-forcing practice. As a result, a lack of awareness and acceptance of this change has arisen. Approaching forcing by studying its historical development, broadening its philosophical uses and focusing on its mathematical varieties opens up an interdisciplinary framework that uses mathematical practice to advocate for such a conceptual change.

Tailoring the electronic structure of semiconductor nanocrystals

Semiconductor nanocrystals are tiny particles, only several nanometers in size. They are so small that their optical and electronic properties differ from those of larger particles. Recently, we investigated the electronic transport of such nanocrystals made of silicon. To that end, we used scanning tunneling microscopy operated at an extremely low temperature (near to zero Kelvin). We observed that the single-particle transport characteristic of silicon nanocrystals obeys the rules of quantum physics. By applying a moderate magnetic field, we noticed a field-dependence of the electronic states. The outcome suggests that, in the future, these nanocrystals can be utilized as magnetic-field-driven switches at the atomic scale. The results have been published in Basu, Tuhin Shuvra; Diesch, Simon; Scheer, Elke. Single-electron transport through stabilised silicon nanocrystals. Nanoscale 10, 13949 (2018).

These findings are part of my research project "Size-controlled luminescent semiconductor-metal hybrid nanostructures: Interplay between size, optical, and transport properties explored on the single object level". Briefly, our ultimate aim is to probe (individually) the electronic states of hybrid nanostructures consisting of silicon nanocrystals and gold nanoparticles by using scanning tunneling microscopy.

Grievance and collective violence: Opening up the black box

Ethnic groups that are politically or economically disadvantaged have been found to be more likely to be involved in armed conflicts with the government. In this project, I use quantitative data and statistical methods to understand ethnic groups' circumstances and the role governments play in them. Together with Carl Müller-Crepon and Yannick Pengl (both ETH Zurich), I analyse how child mortality in 22 African states depends on ethnic identities as well as local ethnic demography. We find that child mortality is both lower in areas where many people have the same ethnicity as the government and amongst members of the government's ethnic group in areas with few inhabitants who do not share the government's ethnicity. With Nils Metternich (University College London), I investigate how powerful groups in autocratic states decide to share power with other ethnic groups. We find that power-sharing is more likely to occur between groups with similar power but also that the effect of similarities in power depends on the specific type of autocratic institutions. The project also analyses how governments in states with different ethnic groups treat the media. Preliminary results suggest that autocratic governments constrain media freedom more when they face larger numbers of groups that are discriminated against on the basis of their ethnicity, which is likely to prevent the development of grievances and subsequent collective mobilisation. On the other hand, in autocracies, the media are allowed more freedom when different ethnic groups that form a government coalition differ considerably in power, arguably because media freedom serves as a commitment device to reassure weaker coalition partners.



Thomas Böttcher Fellow since 03|2014 Dept. of Chemistry



Fellow since 04|2015 Dept. of Chemistry

Small molecules and bacterial pathogens

Antibiotic resistant bacteria pose a major threat to human health. To infect the human host, pathogenic bacteria coordinate their behaviour via chemical signals and thereby simultaneously produce virulence factors such as life-threatening toxins or proteins that protect the bacteria from the human immune response. Some bacteria also engage in social population behaviours like biofilm formation or swarming motility, which aid the infection process and lead to increased antibiotic tolerance. In my research group, we develop chemical tools that help dissect these mechanisms as well as customized inhibitors that block pathogenesis-related processes, which may in the future lead to novel drugs against antibiotic resistant bacteria. During the last year, we made progress in many subprojects. We investigated compounds produced by the human pathogen Pseudomonas aeruginosa, which are potent antibiotics against competing strains of Staphylococcus aureus and also inhibit the growth of multiresistant MRSA strains. In addition, we reported the chemical structure of a new resuscitation factor that reactivates dormant bacteria and developed compounds blocking bacterial swarming behaviour. Next, we will use and apply our chemical tools to develop potential leads for future antibiotics and unlock the secrets of bacterial interactions.

Anisotropic nano-heterostructures for functional materials

Semiconductors play an important role in many technological processes, including solar energy production, photo-catalysis, and microelectronics. In addition, semiconductors show interesting quantum effects if they take the form of particles with sizes of only a few nanometres. To make use of nanoparticles in the above-mentioned technologies, it is necessary to combine two or more materials in a single particle, and to have good control over both particle shape and the way in which two semiconductors are joined together.

In my group, we made two important advances in this field: first, we identified a reaction intermediate in the reaction from molecular compounds to semiconductor nanocrystals which play a central role in the emergence of anisotropy. The intermediate takes the form of polymeric fibres that contain all elements of the reaction product (Cd, Se, alkylphosphonates). The fibres align in parallel and thus template their own reaction with a preferential growth direction.

In a second project, we investigated a nanorod with an interface between CdTe and CdS. This electronic contact leads to the separation of positive and negative charges upon excitation with light. However, high strain between the crystal lattices causes problems that mitigate the use of this interesting material combination. By using ultrafast pump-probe spectroscopy in collaboration with Zukunftskolleg Fellow and physicist Daniele Brida, we were able to show that excited charges localise at the interface. We were able to demonstrate full charge separation by chemically extracting the positive charge carrier. These findings will have a significant impact on the development of photo-active nanomaterials.

5i Strategy



Julia Boll

Fellow
since 03|2013

Dept. of Literature



Daniele Brida
Fellow
since 04|2013
Dept. of Physics

Thinking through theatre: The bare life and the stage

My main project focusses on the theatrical representation of a taboo figure called the bare life (Agamben). This figure often appears as a victim of conflict or as someone who has been legally ostracised from or has never been part of the polis (the community of citizens with civil rights). Other examples are asylum seekers or illegal immigrants. Agamben argues that Western society is founded on a ritual by which the boundaries of the polis are marked by those included and excluded, and that the taboo status of the bare life shields it from the public. I will argue, however, that this taboo emerges on the theatrical stage. By analysing plays from diverse backgrounds, I will trace patterns of the depiction of the bare life across the Western sphere to come to conclusions about the parallels between the Western realm and the ancient polis as to their mutual consolidation of borders, exclusion-based citizenships, and a shared consensus on the human value of those excluded. I also want to explore whether the theatre is a public space where one can watch the relationship between the bare life and the community as an ethical and political question.

In a side project I focus on questions of ethics in the recent depiction of science in literature. In the past, questions of ethics and science were often addressed in speculative fiction where science and its practitioners were off stage, so to speak, or present in the abstract. In this study, I turn to works that allow me to examine what happens when the silent scientist acquires a voice, or a research subject is given a human face, that lead to question the nature of choice and the reach of responsibility for the other. I work comparatively, applying critical theory to novels, drama, poetry, and non-fiction prose.

Nanoscale control of currents with single-cycle pulses

Recently, we demonstrated that single-cycle pulses of minute energy content may result in extremely nonlinear optical phenomena at the nanoscale by exploiting an electronic circuit with a few-nanometer gap between the tips of an optical antenna. The strong electrical bias provided by the field contained in ultrashort optical pulses was harnessed to drive tunneling and ballistic acceleration of electrons to generate a current through the free-space gap with PHz bandwidth. This non-perturbative process is fully coherent with the driving radiation and occurs within a half-cycle of the near-IR carrier wavelength. In addition, we further explore this concept by gaining direct temporal information via interferometric autocorrelation measurements with two identical replicas of truly single-cycle driving pulses.

Remarkably, we were able to perform interferometric autocorrelation measurements with single-cycle pulses with minute pJ energies. The full width at half maximum of the current autocorrelation amounts to less than one femtosecond, which goes to show that we can transfer individual electrons between the two contacts on an attosecond time scale. In the future, we are aiming at a regime where the Coulomb interaction between electrons becomes important at truly atomic time and length scales.

Early independence is the key idea behind the Zu-kunftskolleg.

Researchers are able to carry out research free of restraints early in their career.

The fellowships enable them to implement independent research projects or to build their own research groups.



María Cruz Berrocal Fellow 09|2013-01|2018, now Associated Fellow Dept. of History and Sociology



Udith Dematagoda Fellow since 12|2017



Dept. of Literature



Panteleimon Eleftheriou Fellow since 08|2013 Dept. of Mathematics and Statistics



Maroussia Favre Bridge Fellow 04|2017-10|2017 Dept. of Politics and **Public Administration**

Thank you!

Right now, I am in Taipei for the 2018 field season of excavation and analysis of materials in Heping Dao, Keelung, northern Taiwan. I am happy to report that my move to a new position at the University of Cantabria in Spain has not broken the line of research that took me to Taiwan to carry out fieldwork on several occasions during the last seven years. Thanks to the support I received at the Zukunftskolleg, I was able to carry out extensive research on the prehistoric and historical periods of occupation at a site in Heping Dao, Keelung, northern Taiwan, where my team and I have made unique discoveries in the context of Asia-Pacific history. My time in Konstanz provided me with an incredible opportunity to carry out work that I would perhaps not been able to pursue back in Spain. I am extremely grateful to the Zukunftskolleg and its exceptional group of people, whose commitment was nothing but reassuring throughout my stay here.

In addition, the Zukunftskolleg has allowed me as an Associate Fellow to accept and launch a DFG project obtained in the autumn of last year, just prior to my leaving Konstanz, with the goal of testing hypotheses about demographic impacts of contact on Oceanian islands at the turn of the 16th and 17th centuries. The project will start in the next weeks and has been made possible only by the extraordinary love (I can only define it as such) for research of any kind shown by the director and central office team of the Zukunftskolleg. Thank you.

Machine men, machine minds, machine hearts: Technology, masculinity and fascist modernities

My research is broadly concerned with the convergence of ideology, masculinity, and technology within literary and artistic culture in twentieth-century Modernism. There are several different facets to my research project, comprising analysis of four different writers: Louis Ferdinand Celine, Pierre Drieu La Rochelle, Julius Evola and Wyndham Lewis, with the latter being the central figure of my research project. I have so far written one journal article on national allegory in Lewis's first novel Tarr and I am currently preparing two others on the 'Sublime Horror of Technological War', shedding light on Lewis's experience of technological warfare whilst serving as an artillery officer during the First World War, and how this encounter left an indelible mark upon all of Lewis's subsequent work. I have been appointed as the editor of a new critical edition of Lewis's book Left Wings Over Europe, which will be released through Oxford University Press around 2020. In May 2018, I was a visiting scholar at Cornell University, where I examined primary source material related to the edition. Other work has been preparatory - sourcing, collating and organising primary text materials by Celine, Drieu La Rochelle and Evola.

Groups definable in tame expansions of o-minimal structures

This project belongs to tame geometry, an area of mathematics concerned with geometric objects satisfying certain tameness conditions imposed by logic. Consider, for example, the line y=x+1 and the curve $y=x^2$. The area between them is defined by polynomial equations and inequalities and the logical symbol "AND", namely $y \le x + 1$ AND $y \ge x^2$. We know that such objects are tame, and they are the objects of study of semi-algebraic geometry. Their basic properties, such as volume and dimension, are easy to calculate. On the other hand, a fractal, such as the Koch snowflake, is known to have peculiar and abnormal properties which exhibit a rather wild and non-tame behaviour. To study these properties, one has to appeal to a whole new branch of mathematics called fractal geometry. Tame geometry strives to identify exactly those geometric objects which, although large in scope, still exhibit tame behaviour.

Earlier in my project, I established structure theorems for tame sets. In more recent work, those theorems have been put into practice and two applications were obtained: First, an extension of the influential Pila-Wilkie theorem from o-minimality to the general tame setting, and second, a characterization of tame groups that are o-minimal as groups that have maximal dimension. These developments will be presented during a workshop on tame expansions of o-minimal structures that we are organizing in Konstanz. It will take place from 1-4 October 2018, following up on the "Summer School in Tame Geometry" that we hosted in July 2016.

Bridge Fellowship and beyond

My Bridge Fellowship allowed me to move forward with a project on social power and cultural norms in political networks, meet a number of scholars and develop new colla-

Since 1 November 2017, I have been working as a postdoctoral researcher on the interdisciplinary ERC-funded project NEXUS 1492, which brings together archaeologists, geochemists, and network scientists. I contribute to the study through network visualisation, to show how exchange networks evolved in the Caribbean across the arrival of Europeans.

It is thanks to the interdisciplinarity and openness of the Zukunftskolleg and the advice of people associated with it that I found my current position in the Social Networks group led by Ulrik Brandes, who was, at the time, in Konstanz in the Department of Computer & Information Science, and is now at ETH Zurich in the Department of Humanities, Social and Political Sciences.

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5i Strategy

Our fellows have a double affiliation:

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They enjoy a high level of freedom at the Zu-kunftskolleg and are still securely anchored within their respective research departments where they are connected to the scholarly community and have the opportunity to teach.



Fellow since 03|2015 Dept. of History and Sociology



Fellow since 03|2014 Dept. of Chemistry

The restitution of looted cultural property in Austria, the German Federal Republic and Italy, 1945-1998

The looting and restitution of artworks have captured the attention of the media and the public alike for decades through a range of popular recollections that include novels, exhibitions, documentaries and two recent block-buster movies. Yet very little attention has so far been paid to how the process of restitution evolved in post-fascist Europe and the role that restitution played in the (re)construction of national cultural identities since the end of the Second World War.

This 5-year project analyses the process of restitution of looted cultural property in post-war Austria, the German Federal Republic and Italy from the end of the Second World War to the signing of the Washington Declaration on Nazi-confiscated Art in 1998. Conceived as a transnational history of restitution practices as they unfolded in the three main post-fascist countries, the project investigates the impact of restitution (or lack thereof) along three main lines of enquiry: First, the (re)construction of local, national and later European communities in the postwar period; second, the process of coming to terms with Europe's fascist past; and third, the institutionalisation of supranational policies for the protection of cultural heritage during and after the Cold War.

Pre-nucleation clusters in crystallization – relevance to bioand biomimetic mineralisation

Precipitation from solution is an everyday phenomenon. A prime example is the formation of incrustations from hard water, affecting e.g. washing machines. Nature demonstrates that precipitation processes can be controlled in sophisticated ways, yielding biominerals like human bones and teeth that exhibit outstanding material properties. Key to the biominerals' properties are hierarchical structures that are difficult to realize in artificial materials, because the basic processes underlying their formation remain poorly understood. An improved understanding of the mechanisms guiding precipitation from solution may thus not only be used to develop effective strategies to inhibit such deposits. There is also the great promise of the development of new materials for advanced applications - such as earthquake-safe concrete. During 2017|18, we have made important progress in achieving a better understanding of how organic molecules mechanistically influence the early stages of crystallisation for the most important biominerals. This foundational research will advance the various connected scientific fields. Another major objective for the future is, therefore, to demonstrate how these insights are useful for developing advanced functional materials.



James Griffiths

Fellow
since 04|2016
Dept. of Linguistics



Roxana Halbleib

Fellow since 10|2013

Dept. of Economics

Fragments of discourse

If a speaker wishes to discard redundant words in her utterance, she often can. This use of ellipsis, which occurs in the previous sentence (the phrase 'discard redundant words' is elided after 'can'), is governed by interacting grammatical and discursive constraints. By examining different elliptical phenomena across languages, my research refines our understanding of what these constraints are and how they interact.

From August 2017 to October 2017, I completed my research on the "MaxElide" dataset. It contains utterances like "John kissed someone, but I don't know who [he did kiss]." Here, the ellipsis site (in italics) is contained within a larger elidable phrase (bracketed). Because such utterances are judged as unacceptable, previous scholars suggest that this sentence disobeys the MaxElide constraint, which requires maximal elision whenever possible. Two journal articles based on this research have now been published in Linguistic Inquiry and Nordlyd. I have shown that, aside from being ad hoc, the MaxElide constraint makes incorrect predictions. I analyse the dataset as violating a well-known semantic constraint, which makes MaxElide redundant.

Until July 2018, I have continued my research on reprise fragments such as "John should have been given sedatives." – "Been given what?", the latter being a clarification fragment. In collaboration with linguists from Leiden University, I demonstrated that these fragments are the elliptical counterparts to echo questions like "He should have been given what?" This is an important conclusion because it shows that such fragments cannot be treated as a metalinguistic phenomenon beyond the purview of formal linguistics. An article on this topic will be submitted to the renowned journal Language in winter 2018.

Predicting financial risks

During and following the financial crisis in 2007|2008, numerous financial institutions experienced extreme losses or even went bankrupt (e.g. Lehman Brothers). These financial losses have revealed serious pitfalls in the existing financial risk measures. Although the theoretical research and empirical work on these measures have been continuously developed, their performance during the periods when they are needed most, such as during financial crises, has proven to be quite poor. During the last academic year, my research has mainly focused on developing methodologies to predict financial risks by exploiting the rich information content of high-frequency financial data. In particular, I have been working (1) on developing a latent dynamic factor model with conditional heteroskedasticity to capture the long memory and common dynamics of large panels of realized volatilities, which are high-frequency-based volatility estimates; (2) on developing a latent factor model with underlying Wishart distribution to capture the long memory and common dynamics of the components of high-dimensional realized covariance matrices and (3) on developing tail-based measures of risk (Value at Risk and Expected Shortfall) directly from high-frequency data. For the latter focus, the high frequency data is sampled in an intrinsic time dimension, which aims at capturing the real "heartbeat" of the market's activity, thus providing more valuable information about extreme risks than data sampled in classic calendar time (e.g. every five minutes). This intrinsic time dimension is driven by various market intensity measures, such as intraday volatility patterns or the number of transactions. For estimation purposes, we implement maximum likelihood with the Kitagawa filtering technique as well as simulation-based estimation methods.



Wolf Hütteroth

Fellow
07|2014–10|2017
Dept. of Biology



Fellow since 03|2018 Dept. of Biology



Gisela Kopp

Fellow
since 03|2018

Dept. of Biology
& Max Planck Institute
for Ornithology

Gone, but still connected

In November 2017 I left the Zukunftskolleg and started my current position as an independent group leader at the University of Leipzig. The project is funded by the DFG and includes my own position. In Leipzig, I joined Andreas Thum, another former Zukunftskolleg fellow and now a professor in Leipzig, who offered to host me there. But I remain connected to Konstanz and the Zukunftskolleg: together with Elizabeth Yohannes from Limnology, I successfully applied for a Zukunftskolleg Interdisciplinary Collaborative Project Grant. The project runs until October 2018 and I regularly return to Konstanz to discuss our next steps with Elizabeth and our student assistant.

In our experiments, we feed the fruit fly Drosophila a special sugar, so-called 13C-labelled glucose. This sugar has the advantage that we can detect it easily with mass spectrometry. Using this method, we analyse the flies right after they have been fed. That way, we can examine how fast the sugar reaches crucial organs such as the gut, fat, muscles, and the brain. What is really special about our experimental set-up: We take the challenge to resolve glucose distribution within a few minutes. Most studies wait for hours or days before looking at the induced changes.

Preliminary results with 13C glucose are promising, and we intend to write a DFG grant proposal based on the data we managed to gather so far, where we plan to expand our experiments to labeled amino acids as well. Without the generous and unbureaucratic funding opportunities available at the Zukunftskolleg, I certainly would not have been able to advance so many of my research ideas at this speed.

Revealing the role of individual differences in collective animal behaviour

Fascinated by how animals live and move together in groups, I focus on unravelling the role of individual differences in collective animal behaviour in my research. Computational and theoretical work has shown that many seemingly complex coordinated behaviours, such as the synchronous movements of schooling fish and flocking birds, can be explained by very simple interaction rules. However, grouping animals differ from one another at a wide range of levels, from their sex, age, and size to their personality and physiology. This raises the important question of whether such individual differences among animals constitute a fundamental organisational principle within animal groups that may drive collective behaviour and group functioning and in turn affect individual performance. My work is dedicated to answering this question and I use a strong interdisciplinary approach in my research, combining laboratory experiments, sophisticated animal tracking and field surveys, with computational modelling. In this way, I have recently been able to show that individual personality differences in fish strongly drive the spatial positioning and leadership within groups, determine the movement dynamics, coordination, and functioning of groups, and in turn affect individual foraging performance. This research provides crucial new insights which expand our understanding and ability to predict the emergence of collective behavioural patterns across social and ecological scales.

Sociality and evolution

I am currently investigating the relationship between behaviour and genetics and its impact on speciation. Quite a lot is known about the influence that various ecological niches exert on the development of a species, but what remains largely unknown is how different behaviours impact diversification. Why and how do closely related species develop different social systems? How can these behaviours influence the evolution of a population? These questions will be addressed by using approaches from different biological disciplines, including remote and automated collection of behavioural data in wild animal populations using novel tracking technologies, social network analysis of animal societies, comparative analysis of georeferenced DNA sequences, non-invasive population genomics, estimation of trait-dependent diversification rates and phylogenetic comparative methods. The research project will result in a better understanding of the role of interspecific behavioural differences in population dynamics and speciation processes. The force of behavioural variation in evolution has been largely ignored and its appreciation will substantially complement classical views on the causes of speciation. This will constitute an essential step towards understanding the complex interplay between ecology, social behaviour and adaptive evolution as well as the underlying genomic processes.

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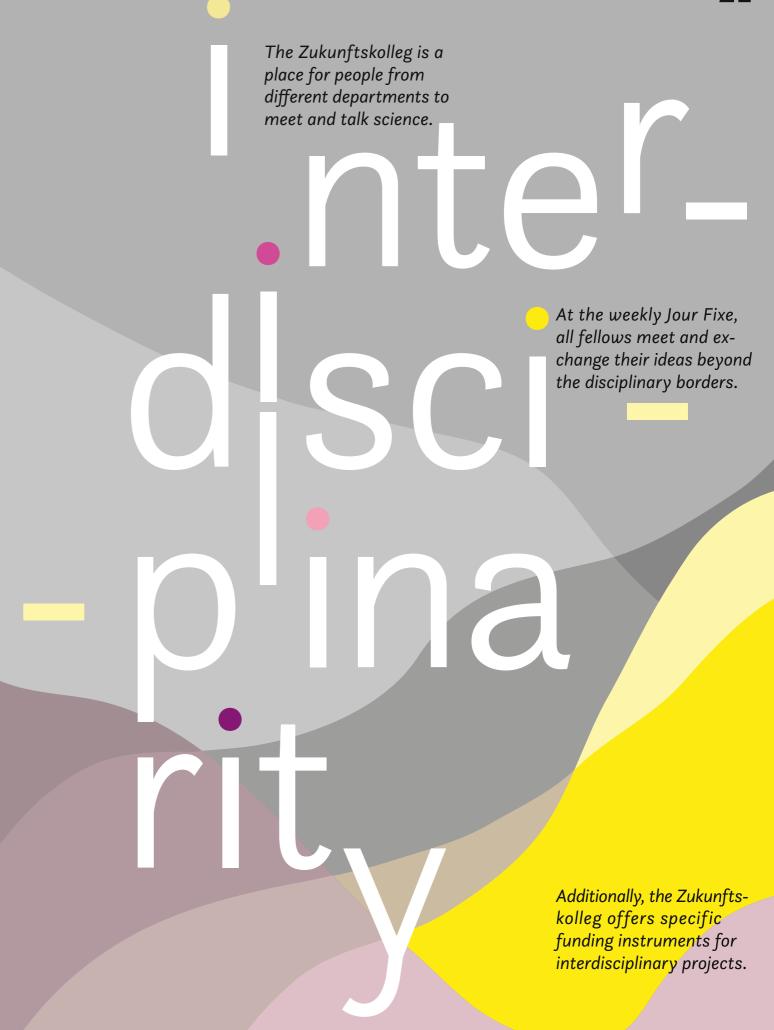


Sasha Kosanic Bridge Fellow 06|2016-10|2017 Dept. of Biology

Fighting for equal opportunities in academia

During the last year I continued my research on climate variability and velocity. Recent climate change is one of the major threats to biodiversity. Although the threat is global, climate change effects on biodiversity will differ locally and regionally. I analysed climate variability and velocity over the 20th and 21st century across Germany using instrumental weather records. I presented the findings of my research at the BES Symposium in Durham (UK) and at the meeting of the American Association of Geographers (AAG) in New Orleans.

At the same meeting and in relation to my endeavours to promote positions of disabled researchers in academia, I was invited by the AAG to organise and chair a panel on "Researchers with disabilities and the obstacles they face in academia". Researchers with disabilities are still a very much underrepresented group in academia worldwide. Although some laws and policies prohibiting discrimination on the basis of disability do exist, they are still rarely followed or implemented. Any direct comparison with non-disabled applicants in the job screening process is a presentation of inequality and unfortunately just illusion of equality. Academia is a very competitive place, and this might be part of the reason why non-disabled academics still do not fully understand that the academic path of disabled researchers may differ from theirs. For example, can they do fieldwork in the same 'way' or 'speed' as non-disabled scientists or researchers? Should we expect their research output (i.e. papers, books) to be of the same quantity as those of able-bodied researchers? The slower pace of research sometimes impacts the quantity, but not necessarily the quality.





Claudius Kratochwil
Fellow
since 09|2013
Dept. of Biology



Oleksandra Kukharenko
Fellow
since 03|2015
Dept. of Chemistry



Takayuki Kurihara

Fellow
since 04|2018
Dept. of Physics



Fellow
since 10|2013
Dept. of Linguistics

Sven Lauer

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Uncovering the molecular mechanisms underlying the repeated evolution of adaptive colour patterns in cichlid fish

Biologists have always been fascinated by the variation in colour patterns found in nature. Colouration is an important feature in the biology of an organism and plays a key role in several fundamental ecological and evolutionary processes such as adaptation, sexual selection and speciation. Fish are well known for this diversity of colour patterns and cichlids are a particular colourful family of fishes, which is well-captured by their German common name "Buntbarsche", or colourful perches. Here, horizontal stripe patterns have occurred and evolved repeatedly in different lakes in the African Rift Valley. I focus on the genetic and molecular basis for understanding how adaptive colour patterns evolved repeatedly within short evolutionary timespans. Recently, we discovered that a single gene which we call stripeless triggered the loss and gain of stripe patterns across independent species flocks of cichlids. Using genome editing (CRISPR-Cas9), we were able to show that we can replicate these evolutionary transitions in the lab. If we disrupt this stripe-inhibiting gene, stripes are re-revealed in normally non-striped cichlid fish, unveiling how a single gene can affect the evolution of a complex colour pattern.

Quantitative analysis of linker histones ubiquitylation based on molecular simulation data

In every cell, DNA is folded in an organised way creating chromatin structures that form the chromosomes. The folding is coordinated by histones, large biological molecules. There are various ways to modify histones, for example by attaching an ubiquitin molecule to them (monoubiquitylation). My project focuses on the development and application of computational methods and mathematical tools to study the influence of monoubiquitylation on histones and subsequently on the ability of DNA to form chromatin structures.

Investigation of biological systems of this size with classic molecular dynamics simulations is limited because the simulation of a vast amount of processes in such highly complex molecules requires significant computational resources and drastically slows the simulation speed. Consequently, the number and frequency of observed events required for reliable analysis is reduced. The use of different resolution levels (multiscale models) in combination with novel machine learning techniques can help to efficiently simulate changes of the ubiquitinated histone and to characterize its phase space. Furthermore, I use kinetic and thermodynamic information to model the behaviour of ubiquitinated histones. Comprehensive information of this kind will be of fundamental importance to the interpretation of experimental data and the planning of future experiments. In addition, the theoretical methods developed and modified during this project will be used to investigate other multi-body systems.

Listening to ultrafast noises in magnets

The properties of any solid materials that we see in our daily lives - the shape of stones, the colour of metals, the strength of magnets - look very still and changeless to our eyes. However, quantum physics tells us that such a view is actually not correct on the microscopic scale. Nothing in the world can stop completely, everything is ceaselessly moving at the quantum level. This phenomenon is commonly known as quantum fluctuation. While it sounds like it may be relevant only in special cases, it is actually the fundamental basis of many exciting phenomena in nature, such as phase transition in magnets. In my study, I am trying to observe the quantum fluctuation of magnetization in the time domain by using a new stroboscopic technique. The key idea is that although the fluctuation is random and fast, if you use ultrafast optical pulses that have much shorter temporal duration than the characteristic time scale of fluctuation, you can record such fluctuations in the time domain by carefully measuring the noise pattern present in the optical probe pulses. To kick off the project, I started designing and constructing the proof-of-principle experimental setup. So far, we have successfully fabricated a high-stability laser source that can realize the abovementioned vision.

Talking about what causes what

In the past year, I worked on better understanding verbs like "cause", "make", "let", and the German "lassen". These are called "causative verbs", because they are used to talk about what causes what. From the perspective of English, "lassen" is a strange causative verb, because it can be understood in two ways: If I say "Hans hat die Kinder tanzen lassen", this can be taken to mean that Hans commanded or forced the children to dance (in this case, the sentence is best translated as "Hans had the children dance"). But it can also be interpreted as saying that Hans gave the children permission to dance (in this case, the sentence is best translated as "Hans let the children dance").

With Prerna Nadathur (Stanford University), I developed a new analysis of causative verbs that is built on the idea that there are two kinds of causal relations that such verbs can express. "Necessity causatives" talk about causes that enable an effect: If I say "The earthquake caused the table to collapse", I am saying (roughly) that the table would not have collapsed if the earthquake had not happened. "Sufficiency causatives" instead talk about causes that ensure an effect: If I say "The joke makes the children laugh", I am saying that the joke made it so that the children could not but laugh. In two papers (under review) we formalize this idea, and show how the often puzzling behavior of causative verbs can be explained.

Internationality is part of the everyday life at the Zukunftskolleg and the University of Konstanz.

5i Strategy

59% of our fellows have a nationality other than German.

Fellows come from many regions of the world, and they go to many regions in the world.



Andrea Lailach-Hennrich

Fellow
since 04|2013

Dept. of Philosophy

The self in imagination

There are moments in life in which one has to make decisions that will affect one's own future self. Should I go to university or should I apply for an apprenticeship instead? Is this a good time to start a family? Whatever the outcome of this deliberation might be, one's future self has to deal with the consequences. However, there is an intriguing philosophical puzzle attached to this. How does one know what this future person wants, believes and fears? I am arguing that we gain knowledge of our future self via imagination. 'Imagination' can be defined as vividly representing something (before the mind's eye) that is not present to the senses and that may or may not be true or even existent. Of course, one can imagine pink elephants sitting on the couch (not true and not existing!), but one can also imagine what it would be like to go to the university or to have a family and this might help to make the appropriate decision. Hence, even if the future selves are just imagined they will have an effect on our current self-view. In contrast to the pink elephant case, however, imagination that presents the future self must be realistic. Imagination as a means for knowledge should therefore be constrained, which means that it should be embedded in a number of justified beliefs about the world. My research focuses on the question whether we can gain knowledge by imagination. More specifically, I am asking about the conditions that must be met for imagination to ground knowledge of the world and ourselves. During the international conference "Imagination and Knowledge" at the University of Konstanz in September 2017 which I organized together with Margherita Arcangeli I gained extremely valuable ideas to further explore my idea.



Fellow since 09|2013 Dept. of Biology



Fellow
since 08|2008
Dept. of Linguistics



Fellow
04|2013-03|2018
Dept. of Physics

Photoprotection in diatoms

Diatoms are unicellular algae inhabiting all aquatic habitats. With a contribution to 1|5 of global primary productivity, they belong to the most important primary producers on earth. One reason for the diatoms' success is their capacity to grow in turbulent waters (e.g. coasts, intertidal mudflats, upwelling regions), where they can exploit the huge amount of available nutrients. However, here light intensity changes over several orders of magnitude within minutes. Hence, the photosynthetic apparatus needs to harvest as much light as possible under low light conditions, but also to dissipate too much harvested light under high light conditions. Otherwise, the diatoms would literally be burned. A major mechanism employed by diatoms to get rid of excess light energy is to dissipate it as heat radiation via NPQ (non-photochemical fluorescence quenching). By knocking out a special antenna protein, Lhcx1, in the diatom Phaeodactylum tricornutum, we show that NPQ is completely absent, demonstrating the essential role of Lhcx1 for NPQ. Furthermore, we reveal that the related antenna proteins Lhcx3 and Lhcx2 provide additional NPQ capacity under prolonged high light stress, and the latter even under iron starvation. Finally, Lhcx2 and Lhcx3 can rescue NPQ capacity in the Lhcx1 knockout strain.

Our findings provide new insights into the molecular mechanism of NPQ in diatoms and in algae in general and demonstrate the algae's capacity for adapting the NPQ capacity depending on the environmental constraints. Some of these findings were implemented in the workshop Unlocking the mysteries of non-photochemical quenching parameters in Sydney, Australia (2017), to demonstrate the potential of fluorescence-based methods to elucidate the physiological state of microalgae.

Microvariation in the expression of meaning

My research is concerned with the question how natural languages encode meaning. One way to approach this question is to look at the variation found between different languages with respect to the means that are used to express the same meaning. While research of this kind has tended to focus on contrasting typologically unrelated languages such as English and Chinese, the investigation of semantic variation between closely related languages like English and German can also be fruitfully applied to identify the building blocks of certain aspects of meaning.

In my work I am particularly interested in the differences between English and German to express two kinds of meaning. The first concerns the different interpretations of atleast in English. In the scalar use of at least (e.g., John owns at least 200 books) the speaker conveys that she is ignorant about the precise value in question. In the concessive use (e.g., At least, it is cheap) the speaker indicates that she is willing to settle for less. In the qualifying use (e.g., At least, he said so) at least is used to restrict the truth of a previous statement. I investigate how these different meaning are mapped onto the three German expressions mindestens, wenigstens and zumindest. My second strand of research investigates subtle differences in the way English and German express so called equatives, which are constructions used to convey that two individuals have a certain property to the same degree, e.g. Bob is as tall as Sue.

Dynamically driven supercurrents in ferromagnetic Josephson junctions

Over the past decade, hybrid superconducting nanostructures attracted tremendous interest in condensed matter physics due to their great potential in dissipationless spintronic devices with unprecedented switching rates. While the demand for such conceptually new devices is enormous, their practical realization requires a detailed understanding of the underlying physics as well as the mastery of the creation and manipulation of spin-polarized supercurrents

My research focuses on understanding the transfer and dynamics of spin- and charge currents between superconducting (S) and ferromagnetic (F) circuit elements, as well as the coupling between spin- and charge degrees of freedom in these systems. Our DFG-funded research project that started in April 2017 investigates specifically the possibility of creating a Josephson coupling between two superconductors across a ferromagnetic barrier by resonantly exciting a precessing magnetization in the ferromagnet. We launch spin-waves in the ferromagnet and then convert singlet cooper pairs in the superconductor to spin-carrying triplet pairs in the ferromagnet. If we succeed, the dynamic excitation of spin-supercurrents in S-F heterostructures, a core aspect of the vision of super-conducting spintronics, comes within reach.



Ezgi Pınar

Bridge Fellow
04|2017–06|2018

Dept. of Politics and
Public Administration



Fellow 02|2016-07|2018 Dept. of Chemistry

Dennis Pingen



I obtained my PhD in the fields of political economy, Turkish politics and political sociology from Istanbul University in 2016. I worked as a research assistant at the university's Faculty of Political Sciences until I was dismissed for signing the declaration issued by Academics for Peace. This led to my application for a Bridge Fellowship at the Zukunftskolleg, which aims specifically to support foreign researchers under threat.

During my stay at the Zukunftskolleg, I carried out the research project "Questioning the hegemonic potential of VET policies in Turkey". I have always been inspired by theoretical questions and epistemological concerns. My research interests include theories of state and neoliberal restructuring, political economy and public policy as well as labour politics. In academia, I enjoy working and thinking in collaboration with others and have been part of various joint projects. Together with my colleagues, I published on the Syrian refugees in Turkey and their integration in the labour market.

I am now a visiting scholar at Sciences Po (Paris Institute of Political Studies), where I work on a new research project on the interplay between labour politics and state theories.

Microalgae derived oils as resource for chemical building blocks

Microalgae offer a unique range of fatty acids of long carbon chains. In the research conducted here, we were able to show that these oils serve as an excellent resource for a broad variety of chemicals. From (multi-)unsaturated fatty acids, for instance, diesters up to 12 carbons can be produced via cross-metathesis with butene, followed by alkoxycarbonylation. Multi-unsaturated fatty acids specifically can be converted to the important industrial building block benzene, previously only available form fossil oil. In addition, the use of biomass from algae was optimized. The extraction of the fatty acids from the algae, however, is a major drawback. Often, large amounts of solvents are required. Two methods have been developed where the biomass is suspended in either methanol or supercritical CO2. In the first case, extraction takes place in combination with alkoxycarbonylation in a single step, whereas the second provides the opportunity to perform the metathesis reaction at the same time as the extraction. The products can be obtained in pure form after recrystallization. The diesters can be used as monomers in polycondensation reactions, but were also subjected to catalytic hydrogenation to alcohols, followed by direct catalytic amination towards diamines, suitable for polyamides.



Jennifer Randerath
Fellow
since 07|2015
Dept. of Psychology

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Motor cognition: Behavioral and neural principles as well as clinical implications

In general, my group aims to foster applied studies based on clinical needs to tackle central problems of our aging society. The focus of our research is on something we use all the time in daily life, the planning and production of movements and actions, especially when these involve tools or objects (motor cognition). We are interested in unraveling the underlying behavioural and neuronal mechanisms. For example, in a recent multi-centre study (Konstanz, Munich, Vienna and USA) including patients with brain damage due to stroke, we showed that for pantomiming tool use movements (e.g. gesturing someone to iron a shirt) two major players in a left brain network are essential: communication as well as motor cognition. The group also develops neuro-rehabilitative methods. Many stroke patients don't know how to appropriately apply tools and objects (limb apraxia), e.g. they may confuse soap for toothpaste to brush their teeth. We recently demonstrated that some of these patients have a lack of insight into their deficit (anosognosia), which makes it difficult to motivate patients to actively participate in their rehabilitation. We are now working on a training approach that aims to improve both, the difficulties patients experience with regard to common tool use as well as the potential lack of insight into this impairment. We are grateful for the close collaboration with the Kliniken Schmieder, which makes our work possible.



Gianluca Rastelli
Fellow
since 03|2013
Dept. of Physics



Philip Rathgeb

Fellow
since 02|2018

Dept. of Politics and
Public Administration

Heisenberg's uncertainty frustration: Is a dissipative quantum system a liquid or solid?

A famous example for phase transition is melting: when increasing the temperature, atoms abruptly move more freely so that the solid becomes a liquid. Such phase transitions also exist in quantum physics, but they are not observable in everyday life. At absolute zero, there are no thermal movements, only quantum fluctuations. Quantum fluctuations are changes that occur, for example, with regard to the position or velocity of a particle. They trigger a transition that is similar to what happens during melting. Furthermore, the phase transitions of a quantum system can be determined by its interaction with the rest of the universe, generally referred to as dissipation. In common wisdom, dissipation suppresses some quantum fluctuations, e.g. regarding position, favouring an ordered "solid" state instead of a disordered "liquid" state. Following Heisenberg's uncertainty principle, a decrease in the fluctuation of the position must lead to an increase of the fluctuation of the velocity. Now imagine that the system interacts with two environments simultaneously: one tries to suppress the fluctuation of the position and the other tries to suppress the fluctuation of the velocity, which contradicts Heisenberg's principle. Thus, the system becomes frustrated, because it cannot satisfy Heisenberg's principle and dissipation at the same time.

As a consequence, we can report a peculiar behaviour that can be traced back to the frustration induced by Heisenberg's uncertainty principle. This represents a genuine quantum effect and paves the way for the study of novel dissipative quantum phase transitions with engineered dissipation.

Maile, Dominik, et al. Quantum phase transition with dissipative frustration. Physical Review B, 2018, 97. Jg., Nr. 15, S. 155427.

When populism meets government: The docial policy impact of the radical right in Europe

The rise of populist radical right parties (PRRPs) can be witnessed across most European democracies. Political and social scientists possess powerful theoretical elaborations on the causes of this electoral shift, but we still know very little about its consequences for the largest part of government activity: the welfare state. This is what my current research project studies. Its principal objective is to identify and explain how European PRRPs influence social policy outputs when they are in government, i.e. their social policy impact. With this agenda, I aim to address a substantial literature gap and contribute to an informed public debate about how the perhaps most dynamic partisan force of our time connects citizens to the exercise of political power. I will continue this project as part of a Visiting Fellowship at the Minda de Gunzburg Center for European Studies at Harvard University with the support of a three-year research grant by the German Research Foundation (DFG).

My previous doctoral studies explored why some countries protect precarious workers from economic uncertainty better than others (so-called labour market 'outsiders'). This research is forthcoming as a monograph to be published by Cornell University Press (expected date of publication: 15 December 2018). Other parts of my doctoral research have appeared in Comparative European Politics, the European Journal of Industrial Relations, and the Austrian Journal of Political Science. You can find more information about my research and teaching here: www.philiprathgeb.com.



Özlem Savaş

Bridge Fellow
04|2017–11|2017
Dept. of Literature



Sebastian Schutte
Fellow
since 06|2014
Dept. of Politics and
Public Administration

Gains through the Bridge Fellowship at the Zukunftskolleg

The Zukunftskolleg has opened a door for me during the extraordinary time I experienced political repression in both my academic and personal life. The Bridge Fellowship provided me not only with the opportunity to continue my research in the field of media studies, but also with the time I needed to contemplate and reflect on my research path. I had the opportunity to explore new research ideas and put them together in my new project, which helped me secure additional fellowships.

When I look back, I realize that what I experienced as a rupture in my academic career path has been crucial to revising and refreshing my scholarly agenda, thanks to the comforting and fruitful atmosphere at the Zukunftskolleg. During my stay there, I had the chance to exchange ideas and experiences with many scholars from diverse backgrounds and fields. I also had the opportunity to collaborate with the 'Media and Participation' research group, in particular with Professor Isabell Otto, at the Department of Literature with Art and Media Studies.

Explaining and predicting large-scale violence in civil conflicts

In some recent cases of civil conflict – such as Lybia, Egypt, and Syria – revolutionary uprisings have given way to ethnic and religious conflicts. The overall goal of my research project is to test a theory of how this transition happens. Why do some episodes of political violence cause large-scale civil wars between groups while others do not?

This research is complicated by a number of factors: civil wars are luckily very rare. More importantly, getting reliable data on what happens during these conflicts is really difficult. Finally, neither researchers nor civilians must be exposed to risks during the research.

I have built a system for electronic surveys that can be used to interview respondents before, during, and after predictable escalations in violence. Over the last year, I worked closely with Constantin Ruhe to collect data in India and Kenya. What we found to be true for most conflicts is that individual-level experiences of fear and violence strongly affect attitudes towards entire groups. This insight is important, as theories of political violence often focus on the actions of governments and rebel organizations, rather than paying attention to the experiences of individuals. We believe that violence against civilians across group boundaries contributes strongly to escalations.

The Zukunftskolleg supports the exchange between experienced and junior researchers.

Experienced researchers are tremendous sources of experience and knowledge.

For example, fellows are encouraged to invite Senior Fellows or mentors.



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Antje Strauß

Bridge Fellow
since 09|2016
Dept. of Linguistics



Elena Sturm
(née Rosseeva)

Fellow
since 03|2013
Dept. of Chemistry



Fellow since 06|2018 Dept. of Psychology



Fellow
since 08|2013
Dept. of Biology

The role of syllabic rhythm for understanding speech in noise

Listening to speech might be challenging especially with regard to hearing loss or the huge variety of environmental noise in our everyday life. Recent advances in cognitive neuroscience show that the neural activity in auditory cortices oscillates at the syllable rhythm (~4Hz) in order to achieve speech comprehension. However, it is still unclear whether these slow neural oscillations, the waxing and waning of neural excitability, are just an acoustic byproduct or whether they constitute higher-level linguistic processes. We conducted a study using Electroencephalography (EEG) and transcranial alternating current stimulation (tACS) while participants listened to speech with different rhythms in noise. Preliminary results point towards beneficial effects of brain stimulation occurring only when speech was presented with its natural rhythm. Data analysis is still in progress because the investigator was on maternity leave during the last year. The results might be important for the development of future therapeutic interventions for clinical populations with linguistic deficits such as dyslexia as well as for elderly persons with hearing loss.

Nanostructured and composite materials: Self-assemblies of nanoparticles, biological and bioinspired materials

Hierarchical self-organized nanostructured materials are a focus of attention in today's nano- and materials science and are important not only for basic research, but also for a number of recent and desirable applications in the fields of building materials, medical implants, sensors and many more. The basic driving force of my research is to obtain deeper insights into the fundamental principles of the structure, organisation and formation of nanocomposite materials from self-assembly of nanoparticles to biological and biomimetic/bioinspired systems in order to understand how these complex and unique systems form and function. My research topics are usually very interdisciplinary and therefore naturally include a lot of collaboration with researchers in the fields of chemistry, physics and biology. In the past years, we have synthesized and structurally characterized self-assembled mesocrystals based on metallic and magnetic nanoparticles. We also study a complex structure of teeth of snail-crushing cichlid fish that have been found to be made of mechanically highly durable and fracture-resistant materials. This knowledge inspires the development of new approaches to the biomimetic design of new materials, especially for biomedical application.

New perspectives on social trust and its role in cooperation

Social trust is considered fundamental to a well-functioning society and is studied extensively across the social sciences. However, it is still unknown how social trust interacts with other factors to produce specific decisions about cooperative actions. In my research, I focus on the psychological aspects of social trust by viewing it as an assessment of the base rate of benevolent versus malevolent agents in the social environment and investigating how it influences decisions about forgiveness and revenge. I plan to start conducting experiments in the autumn of 2018. In July 2018, I presented my research at the 30th Annual Meeting of the Human Behavior and Evolution Society in Amsterdam, giving a talk on "Baker's Town: A novel game to test theories and models of cooperation".

Does side matter? Evolution of genital asymmetry in livebearing fishes

I aim to understand the selective advantages that favoured the evolution of biodiversity and promote its maintenance. I address this question in a group of small livebearer fishes from South America. Females carry their developing embryos in their abdominal cavity, providing nutrition to them through a structure analogous to the mammalian placenta. This requires that the eggs are internally fertilized; and to do so, males use a modified fin called gonopodium as an intromittent organ. Using whole genome data, I recently reconstructed the evolutionary relationship between the different species in this group. This has allowed me to determine how these fish diversified. More interesting for my project, this comprehensive phylogenetic tree allowed me to determine that a particular trait - the lateralization in the direction of the gonopodium - evolved multiple times in this group. Three species evolved a strong bias in the direction of lateralization. Most males in those species are left-handed, in the sense that they can only fertilize females from their left flank. Curiously, these species are not closely related, suggesting that lateralization evolved independently in these three species. This is very interesting as it opens the door to questions about the selective pressures that favoured this pattern. Interestingly, I am finding evidence that the control for paternity might be one of the most relevant drivers in the evolution of this intriguing trait.



Tilman Triphan

Fellow
02|2016-01|2018

Dept. of Biology



Fellow
02|2016–03|2018
Dept. of History and
Sociology



Fellow
since 03|2016
Dept. of Literature

A place with an interdisciplinary and international mindset

When I was planning to return to Germany after several years in the United States, I was looking for places with an interdisciplinary and international mindset. In the US, I had been a post-doc at the Howard Hughes Medical Institute (HHMI) Janelia Research Campus. My colleagues there came from a wide variety of different backgrounds and disciplines (biology, chemistry, physics, computer science, etc.) and from (almost) all over the world. I had learned that I thrive in this environment and the Zukunftskolleg in Konstanz turned out to be the perfect place. In our weekly gatherings I met with experts from my area of expertise but also with historians, linguists and philosophers. In the usual university setting you rarely get the opportunity to intermingle with colleagues outside your institute. This provided me with insights into other areas and also presented me with the chance to view my own field in a different light.

My own area of research is neurobiology with a focus on complex locomotion behaviour using the fruit fly Drosophila melanogaster as a model organism. In Konstanz, I started collaborations with two of my Zukunftskolleg colleagues (Andreas Thum and Wolf Hütteroth). These collaborations are continuing in my current position in Leipzig.

The two years I spent at the Zukunftskolleg were very productive and formative for me. I really enjoyed my time in Konstanz, not least because of the beautiful Bodensee landscape.

Self-confidence and modesty

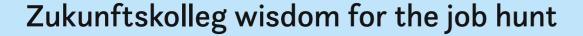
My two-year stay at the Zukunftskolleg surely had a crucial impact on my personal development as a researcher. The frequent exchange with highly motivated postdoctoral researchers from other disciplines led me to think deeply about the possibilities - and limitations - of methodological innovation in my own field and about the structure of the academic system as a whole. At the same time, the Zukunftskolleg's generous support with financial and other resources enabled me to develop my profile as an independent researcher and to advance my scientific career. Even if that seems to be paradoxical, my stay at the University of Konstanz taught me both to be more self-confident as a historian and to be more modest as a scholar - and left me wondering about fast developments in the globalized and highly specialized scientific world that the multidisciplinary institution of the Zukunftskolleg represents so well.

Feminist researchers across borders

In the 2017|18 academic year, I launched the research network Feminist Researchers Across Borders. Working with colleagues based in the US, Canada and Greece, we organised two international workshops to bring scholars working in this research area together. The first of these workshops was hosted at the Zukunftskolleg in summer 2017, and included the public plenary 'Welcome Refugees: Feminist Speculations from Canada to Germany.' The second event was hosted in Athens, Greece in autumn 2017. To fund these two events, we were generously supported by the Zukunftskolleg, which then enabled us to apply for and secure a larger grant through the Social Science and Humanities Research Council of Canada. My collaborators and I gathered the research presented and developed across these two events into a special edited issue of Refuge: Canada's Journal of Forced Migration. The issue thematically examines intersectional feminist interventions in the 'refugee crisis' and was published in June 2018. The research network continues to provide infrastructure and support to my larger research project at the Zukunftskolleg, which works to develop a feminist and critical race theory-driven account of bordering and migration.



Bridge Fellow
since 03|2017
Dept. of Empirical
Educational Research



I took part in dozens of job interviews during the academic year 2017|2018. Job-hunting was competitive, but fruitful as well. So far I have received three offers from China: for an associate professorship at Qingdao University, an associate professorship at Gannan Normal University and an assistant professorship at Yangzhou University.

Some experiences and wisdom gained during my time at the Zukunftskolleg inspired and strengthened my efforts during my job-hunt. The Zukunftskolleg is a unique institution which welcomes scholars from around the world and hosts researchers from almost every discipline. All fellows come together in the weekly Jour Fixe meetings, which were the best ones I ever attended. Although some topics were hard to follow, I was inspired by the presentations from different disciplinary backgrounds. The research committees in my job interviews were also from different research fields, but I was prepared for such situations because of my experiences at the Zukunftskolleg.

The Jour Fixe also taught me to prepare myself for situations in which the audience knows little or even nothing about my research topic. I gave presentations and attended many presentations with different topics at the Zukunftskolleg in the last two years. This helped me to learn how to present my research topic in a way that even people from outside my research field can understand. This was extremely helpful for my job interviews. Another thing that I have learned at the Zukunftskolleg is that presentations with a clear structure and brief content are always more desirable. This helped me to make my points and provide convincing arguments in tight time constraints and competitive environments.



Maria Zhukova

Bridge Fellow
06|2016-02|2018

Dept. of Literature

Soviet television between ideological use and mediological exploration in literature and film

During the academic year 2017|2018, I worked on the new improved version of the group research initiative Electrified Image. Discourses and Poetics of Television in Literature, Film and Drama in Soviet and Post-Soviet Russia (1950s-2010s). The application was submitted to the DFG in April 2018. My own subproject Soviet television between ideological use and mediological exploration in literature and film (1950s to 1991) seeks to understand and contextualise TV in late Soviet culture. The project is divided into two main areas of inquiry, or research questions. The first one compares two TV discourses: an official print media discourse propagating TV as a "powerful tool of communist education" on the one hand, and an artistic (film, literature) discourse that essentially deconstructed this statement on the other. The common grist shared by these two (antagonistic) discourses is nevertheless a set of metaphors used to define the television medium, or so I shall argue. The aim of the project is to investigate how metaphors, such as the TV as mirror, window, icon, water, fire or drug (among others), circulating in artistic production of the time might reveal an underlying incompatibility between the aesthetic and communicative qualities of TV and the socialist ideology of Soviet Russia. The second question concentrates on the impact of television on other media. It explores how, in the Soviet period from the 1950s to the 1990s, literature and film seismographically register and comment upon the cultural effects of the expanding TV medium - not only via thematic references, but also by applying its formal structures and aesthetical features.

Jour Fixe

The Jour Fixe is the weekly interdisciplinary session for fellows from all departments. The meeting focuses on presentations of new projects and results of current projects, introduction of new junior research groups, as well as topical discussions and debates concerning higher education policies. The fellows discuss the progress of their work, present results, share and encounter questions from other disciplines, and explore the possibilities of interdisciplinary collaboration.



Jour Fixe Jour Fixe

Winter term 2017 | 2018

November 15, 2017

Opening event winter term 2017 2018

Election of a new member to the

Executive Committee

November 22, 2017

Local archaeology in Heping Dao, a global history of Taiwan

María Cruz Berrocal, Fellow Dept. of History and Sociology

November 29, 2017

On consciousness and attention, or the making of scientific psychology: Wilhelm Wundt.

Andrea Lailach-Hennrich, Fellow Dept. of Philosophy

December 6, 2017

Nature and culture – a false dichotomy?

Tilman Triphan, Fellow

Dept. of Biology

December 13, 2017

Greenhouse gases... and beyond

Dennis Pingen, Fellow

Dept. of Chemistry

December 20, 2017

Jour Fixe Christmas session

January 10, 2018

Absolute zero: Cryogenics and the mastery of cold – the coolest science ever

Torsten Pietsch, Fellow

Dept. of Physics

January 17, 2018

Special Jour Fixe: How international is academia? (Part I)

January 24, 2018

Special Jour Fixe: How international is academia? (Part II)

January 31, 2018

Understanding party politics using feeling barometers and generalized unfolding models

Konstantin Käppner, Associated

Fellow

Dept. of Politics and Public Administration

Summer term 2018

April 18, 2018

Opening event summer term 2018

Election of a new member to the

Executive Committee

April 25, 2018

Reading: The need for better regulation of outer space Pippa Goldschmidt, guest speaker

May 2, 2018

Special Jour Fixe: Size There is plenty of room at the bottom: Size effects on the small scale in chemistry and physics

Klaus Boldt, Fellow

Dept. of Chemistry

May 9, 2018

Special Jour Fixe: Size How we (don't) understand mathematical infinities

Carolin Antos, Fellow

Dept. of Philosophy

May 16, 2018

Special Jour Fixe: Size Size in political science: Ethnic groups, power and distributio- Takayuki Kurihara, Fellow nal politics

Janina Beiser-McGrath, Fellow

Dept. of Politics and Public Adminis-

tration

May 23, 2018

Individual differences in collective behaviour: From proximate mechanisms to ecological and evolutionary consequences

Jolle W. Jolles, Fellow

Dept. of Biology

May 30, 2018

Social decisions as signal detection: The case of forgiveness

Jolene Tan, Fellow

Dept. of Psychology

June 13, 2018

Theoretical study of nonlinear July 18, 2018 phenomena in nanomechanical resonators in classical and quantum regime

Mark Dykman, Senior Fellow

Dept. of Physics

June 20, 2018

Terahertz spectroscopy – filling up the gap of optical frequency

June 28, 2018

Dept. of Physics

Public Lecture: Intended uncertainty – moral and institutional issues

Prof. Wolfgang Seibel, guest speaker Dept. of Politics and Public Adminis-

tration

July 04, 2018

Hunted with howitzers: Wyndham Lewis and the sublime horror of technological war

Udith Dematagoda, Fellow

Dept. of Literature

July 11, 2018

The Galilean first thing Jeff Kochan, Associated Fellow Dept. of Philosophy

Presentation of the results of the evaluation Election of a new member to the

Executive Committee

Funding Programmes
Events
Talks
Publications
Grants and Awards
Teaching

Facts and Figures



Funding Programmes

The Zukunftskolleg offers its fellows a close-knit and diverse network of support. This not only creates ideal working conditions for young scholars but also provides the best possible preparation for their scientific careers. Some support measures are also open to Senior Fellows, Associated Fellows, and postdoctoral researchers at the University of Konstanz.

Transdepartmental Collaborative Teaching

This programme aims to promote the development of new teaching courses and expand departmental syllabi. It gives grant holders the opportunity to explore new, innovative topics in teaching and to further develop their teaching skills and teaching approach across disciplines.

Alex Jordan, Julián Torres-Dowdall and Ariana Strandburg-Peshkin (all: Dept. of Biology) as well as Karsten Klein and Bjorn Sommer (both: Dept. of Information and Computer Science): Quantitative methods in marine behavioural ecology (summer term 2018)

Dennis Pingen (Dept. of Chemistry), Ioanna Salvarina and Elizabeth Yohannes (both: Dept. of Biology): Controversial and Critical views on Global Environmental Changes

Intersectoral Cooperation Programme

The Intersectoral Cooperation Programme aims to develop cooperation between Zu-kunftskolleg Fellows and the non-academic sector. Grants are given to support cooperations that foster joint research projects with industrial partners, companies, social institutions, cultural institutions, archives, public bodies, or non-profit organisations.

Moritz von Brescius (Dept. of History and Sociology) and the Alpine Museum (Munich): The art of expeditionary science: Asia in the images of the Schlagintweit Brothers

Jolle W. Jolles (Dept. of Biology) and the Toer Art-Design Studio (Netherlands): Animal collective – a compendium of interactive projects that showcase the fascinating spectacle of collective animal behavior

Dennis Pingen (Dept. of Chemistry) and Desiree Wevers (designer/MA-DE Design & Education): The art of chemistry: Colouring with nanoparticles Gianluca Rastelli (Dept. of Physics), Dennis Pingen (Dept. of Chemistry), Andrea Lailach-Hennrich (Dept. of Philosophy) and Sarah Bildstein (artist and art historian): 100 spectres

James Griffiths (Dept. of Linguistics), Udith Dematagoda (Dept. of Literature) and Adam Campbell (sound artist): The music of language, technology and desire

Co-Funding

This programme offers financial support to co-fund the human and material resources needed for projects at the Zukunftskolleg, e.g. for student or research assistants, conferences, equipment, research trips or consumables. Listed are some examples for granted Co-Funding applications.

Tuhin Basu (Dept. of Physics): Funding to attend the conference 'Nano today 2017' at Hawaii, USA.

Thomas Böttcher (Dept. of Chemistry): Funding to cover chemicals for experiments and to hire student assistants. **Udith Dematagoda** (Dept. of Literature): Funding for a research trip to Cornell University in Ithaca NY (USA) to consult the Wyndham Lewis Archive.

Funding for a film project "Across the Atlantic", a passage on a ship from Hamburg to New York.

Denis Gebauer (Dept. of Chemistry): Funding of experimental fees resulting from the research stay of his PhD student, Ms. Yu-Chieh Huang, at the University of York.

Roxana Halbleib (Dept. of Economics): Funding to participate in four conferences from June to December 2018.

Claudius Kratochwil (Dept. of Biology): Funding for hiring a student assistant.

Oleksandra Kukharenko (Dept. of Chemistry): Funding to finance the mutual visits of her colleague Dr. Volodymyr Shvadchak and her to conduct a joint project on mathematical modeling of fibrils kinetics.

Andrea Lailach-Hennrich (Dept. of Philosophy): Zukunftskolleg & DFG-Research Group 'What if?', International Conference "Imagination and Knowledge", September 2017.

Philip Rathgeb (Dept. of Politics and Public Administration): Funding for a visiting fellowship at the Center for European Studies (CES) at Harvard University for a period of four months from September to December 2018.

Jennifer Randerath (Dept. of Psychology): Funding for hiring student assistants.

Leila Whitley (Dept. of Literature): Funding to attend a workshop at the Simone de Beauvoir Institute at Concordia University in Montreal in July 2018.

Interdisciplinary Collaborative Projects

This programme aims to promote research collaborations between junior researchers. An interdisciplinary research project gives grant holders the opportunity to identify and explore new, innovative and/or risky research perspectives with neighbouring disciplines and across disciplines.

Damien Farine (Dept. of Biology/Biodiversity and Collective Behaviour), Robert Kraus (Dept. of Biology/Max-Planck-Institute for Ornithology) and Gisela Kopp (Dept. of Biology/Physical Ecology and Animal Migrations): How genomic relatedness within and across groups shapes the behaviour of vulturine guineafowl

Bela Gipp (Dept. of Computer and Information Science) and Karsten Donnay (Dept. of Politics and Public Administration): Identification of media bias in news articles using automated frame analysis

Michael Kovermann (Dept. of Chemistry) and Bela Gipp (Dept. of Computer and Information Science): Conceiving an electronic lab notebook using blockchain technology to promote data integrity and reproducibility in scientific research

Dennis Pingen (Dept. of Chemistry) and **Elizabeth Yohannes** (Dept. of Biology/Limnology): Local lakes as resources for fatty acids

Elena Sturm (Dept. of Chemistry) and Claudius Kratochwil (Dept. of Biology): Cracking the structural and genetic basis of tooth biomineralization in snail-crushing cichlid fishes

Elizabeth Yohannes (Dept. of Biology/ Limnology) and Wolf Huetteroth (Dept. of Biology): Postprandial calorie distribution in the fruitfly Drosophila Funding Programmes

Funding Programmes

Independent Research Grant

The Independent Research Grant aims to promote independent research by researchers who are in the early stages of their postdoctoral work. The Zukunftskolleg invites applications for financial support of up to 3 000 EUR for projects that help the individual applicant attain scientific independence. This funding instrument is open to postdoctoral researchers at the University of Konstanz.

Ariane Bertogg (Dept. of History and Sociology): Spousal influence on retirement timing in Europe

Caroline Bonnes (Dept. of Economics):

Approaches to teaching of workplace trainers

– A video study

Taniesha Burke (Dept. of Psychology): Children's perspectives of their covert and overt resistance strategies to parental requests and rules Samuel Carleial (Dept. of Psychology): Programming the event checklist threats to human life scale as a smartphone and tablet application

M. Eugenia Delgado (Dept. of Biology): LRH1/NF-KB interactions and their role in the regulation of intestinal tissue homeostasis

Doris Forster (Dept. of Law): The legal need of publicity in private law

Peter Haffke (Dept. of Psychology): (Deficient) color perception and aesthetic preference judgments

Tim Kuhlmann (Dept. of Psychology): Smartphone sensor data: What information does it provide for social scientists?

Javier Lazaro Tapia (Dept. of Biology): Development of a system to monitor heart rate, body temperature, activity and movement in wild hedgehogs

Liang Li (Dept. of Biology): Quantitive analysis of energy cost of schooling fish with high fidelity robotic fish model

Hanhe Lin (Dept. of Computer and Information Science): *Paired comparison for subjective IQA via crowdsourcing*

Yanjie Liu (Dept. of Biology): Does artificial light at night promote on plant invasion?

Melanie Nagel (Dept. of Politics and Public Administration): *Knowledge transfer in climate policy*

Morgane Nouvian (Dept. of Biology): Association vs improved detection: dissecting the mechanisms of learning

Melisa Olave (Dept. of Biology): The genomic landscape of hybridization

Mialy Razanajatovo (Dept. of Biology): Is heterospecific pollen transfer more frequent between phylogenetically related and functionally similar alien and native species?

Cristina Ruiz Agudo (Dept. of Chemistry): Damage to concrete structures due to sodium carbonate and potassium carbonate crystallization (II)

Andra Toader (Dept. of Politics and Public Administration): Transforming dissimilar mental models into creative outcomes using conceptual combination

Mentorship

The Mentorship Programme enables fellows and post-doctoral researchers at the University of Konstanz to network with distinguished colleagues both in Germany and abroad, and to maintain these contacts.

Tina Bögel (Dept. of Linguistics) and Mentor Alice Turk (University of Edinburgh, UK)

Kathrin Breuing (Dept. of Economics) and Mentor Sabine Seufert (University of St. Gallen, Switzerland)

Anselm Crombach (Dept. of Psychology) and Mentor **Patrick McGrath** (Dalhousie University, Canada)

Udith Dematagoda (Dept. of Literature) and Mentor **Nathan Waddell** (University of Birmingham, UK)

Giulia Fabrini (Dept. of Mathematics and Statistics) and Mentor Tommaso Lorenzo (University of St. Andrews, UK)

Jolle W. Jolles (Dept. of Biology) and Mentor Shaun Steven Killen (University of Glasgow, UK)

Gisela Kopp (Dept. of Biology) and Mentor **Luca Pozzi** (University of Texas, San Antonio, USA)

Michael Kovermann (Dept. of Chemistry) and Mentor Pernilla Wittung-Stafshede (Chalmers University of Technology, Gothenburg, Sweden)

Andrea Lailach-Hennrich (Dept. of Philosophy) and Mentor **Dominic Gregory** (University of Cheffield, UK)

Sven Lauer (Dept. of Linguistics) and Mentor **Kjell Johann Saebø** (University of Oslo, Norway)

Sandro Lininger (Dept. of History and Sociology) and Mentor **Yair Mintzker** (Princeton University, USA)

Carlotta Martelli (Dept. of Biology) and Mentor Toshihide Hige (Howard Hughes Medical Institute, Virginia, USA)

Morgane Nouvian (Dept. of Biology) and Mentor Alison R. Mercer (University of Otago, New Zealand)

Antje Rumberg (Dept. of Philosophy) and Mentor **Patrick Blackburn** (Roskilde University, Denmark)

Inga Schalinski (Dept. of Psychology) and Mentor Martin Hersch Teicher (Harvard Medical School, Boston, USA)

Michael L. Smith (Dept. of Biology) and Mentor Tim Landgraf (FU Berlin, Germany)

Julián Torres-Dowdall (Dept. of Biology) and Mentor Cameron Ghalambor (Colorado State University, USA)

Andreas Trotzke (Dept. of Linguistics) and Mentor Anastasia Giannakidou (University of Chicago, USA)

Alumni Cooperation Programme

This programme aims to support cooperations between a current and a former fellow of the Zukunftskolleg. Grants will be given to support cooperations that foster joint research projects. The programme comes out of the credo "once"

a fellow, always a fellow" and aims at strengthening the links to our international community of fellows. Furthermore, the Alumni are actively encouraged to act as mentors for the younger generations of fellows of the Zukunftskolleg.

Julia Boll and Leila Whitley (both Dept. of Literature) in collaboration with Kate Fama (Alumna/University College Dublin), Elliott Lash (Alumnus/University of Maynooth) and Emily Petermann (Dept. of Literature): Funding to support the continuation and expansion of their Konstanz-based advanced training and discussion workshop series "The Humanities Pedagogy Workshop"

Research Visit

New to the network of support measures, this programme seeks to enhance international research cooperation and to support international mobility of our fellows. It funds temporary research stays both at the Zukunftskolleg and abroad for intercultural exchange among peers.

Yonatan N. Gez (Dept. of History and Sociology) Incoming Research Visit from the Martin Buber Society, Jerusalem/ Israel

Jolle W. Jolles (Dept. of Biology) Outgoing Research Visit to University of Girona, Institute of Aquatic Ecology, Girona/ Spain

Events

Events organised by the Zukunftskolleg and its fellows.

2017

14-16 September

Questioning speech acts workshop co-organised by the Emmy Noether Group of Sven Lauer (Fellow/ Dept. of Linguistics) and the research unit "Questions at the interfaces" (Dept. of Linguistics)

20 September

The future of neuropsychology at universities satellite symposium with Cornelia Exner (Leipzig University, Germany) and Lutz Jäncke (University of Zurich, Switzerland) in the framework of the annual conference of the German Society of Neuropsychology, organised by Jennifer Randerath (Fellow/ Dept. of Psychology)

21-22 September

New perspectives on the micro-dynamics of political violence workshop co-organised by Sebastian Schutte (Fellow/Dept. of Politics and Public Administration) and Constantin Ruhe (Associated Fellow/Dept. of Politics and Public Administration)

21-23 September

Yearly conference of the German Society of Neuropsychology hosted and co-organised by Jennifer Randerath (Fellow/Dept. of Psychology) and Thomas Elbert (Dept. of Psychology)

23 September

Mehrsprachigkeit in Kita und Schule gemeinsame Herausforderungen und gemeinsame Wege

symposium co-organised by Tanja Rinker (Associated Fellow/Dept.of Linguistics) of the "Zentrum für Mehrsprachigkeit", the State Education Authority Konstanz, the municipal day care centres in Konstanz and the Italian Consulate General Stuttgart/ Freiburg

28 September

Imagination and knowledge workshop co-organised by Andrea Lailach-Hennrich (Fellow/Dept. of Philosophy) and Margharita Arcangeli (Humboldt University Berlin, Germany)

18 October

Psychological determinants of endurance performance symposium in the context of one of the Zukunftskolleg's interdisciplinary collaborative projects, co-organised by Maik Bieleke (Department of Psychology) and Wanja Wolff (Department of History and Sociology)

20 October

Material culture pedagogies workshop led by Zara Anishanslin (University of Delaware, USA), organised by Julia Boll (Fellow/Dept. of Literature) and Kate Fama (University College Dublin) within "The Humanity Pedagogy Workshop" of the Zukunftskolleg

2-3 November

Meeting of the Scientific Advisory Board

3 November

Celebration of the 10-year anniversary of the Zukunftskolleg

8 November

University day on "Vorhersehbarkeit" workshop for pupils led by Janina Beiser-McGrath (Fellow/Dept. of Politics and Public Administration), Thomas Böttcher (Fellow/Dept. of Chemistry) and Jennifer Randerath (Fellow/Dept. of Psychology), co-organised by the Zukunftskolleg and the Hegau-Bodensee Seminar

28 November

American visual art in the Soviet Union during the Cold War: Defining patterns, strategies, and impacts lecture by Kirill Chunikhin, organised by Maria Zhukova (Associated Fellow/Dept. of Literature)

30 November-1 December

Future research directions selection workshop for the 5-year Research Fellowships at the Zukunftskolleg

1 December

Performance, pedagogy and the information economy: Teaching in the wake of post-industrialisation

workshop led by Kim Solga (Western University, Canada), organised by Leila Whitley (Fellow/Dept. of Literature) "The Humanity Pedagogy Workshop" of the Zukunftskolleg

2018

18-19 January

Forcing and philosophy workshop co-organised by Carolin Antos (Fellow/Dept. of Philosophy) and Daniel Kuby (Dept. of Philosophy)

31 January

Slamming without borders science slam by the student group "Studying without borders", with a contribution by **Dennis Pingen** (Fellow/Dept. of Chemistry)

5 February

Life's origami: Protein folding, misfolding, and human diseases Zukunftskolleg Lecture by Vinod Subramaniam (Rector Magnificus of Free University of Amsterdam, Netherlands)

20 February

Emily Ballou: The Darwin poems group reading within the "Book Club", organised by Julia Boll (Fellow/Dept. of Literature)

7 March

Social regulation of reproduction in a tropical insect society lecture by Raghavendra Gadagkar (Indian Institute of Science) organised by the Zukunftskolleg

23 March

Teaching the archive: Local places and digital spaces workshop at the Humanities Institute at University College Dublin, co-organised by "The Humanity Pedagogy Workshop" of the Zukunftskolleg

13 April

Teaching vulnerability, teaching vulnerably workshop led by Timothy C. Baker (University of Aberdeen, UK), organised by Julia Boll (Fellow/Dept. of Literature) within "The Humanity Pedagogy Workshop" of the 27–30 June Zukunftskolleg

4 May

Unconscious bias in higher education: The inclusive curriculum project workshop led by Trish Reid (Kingston University London, UK), organised by Julia Boll (Fellow/Dept. of Literature) within "The Humanity Pedagogy Workshop" of the Zukunftskolleg

8 June

Teaching (with) digital humanities workshop led by Padmini Ray Murray (Srishti Institute of Art, Design and Technology, India), organised by "The Humanity Pedagogy Workshop" of the Zukunftskolleg

11 June

Feminist theories of vulnerability and the manifesto form workshop led by Kay Dickinson (Condoria University, Canada) and Layal Ftouni (Utrecht University, Netherlands), organised by Leila Whitley (Fellow/Dept. of Literature) as part of the "Feminist Forum Konstanz"

23 June

Wissenswelten – long night of science event in Konstanz, co-organised by the University of Konstanz and other educational institutions, with contributions by our fellows and Associated Fellows Carolin Antos (Dept. of Philosophy), Julia Boll (Dept. of Literature), Thomas Böttcher (Dept. of Chemistry), Jolle W. Jolles (Dept. of Biology), Michael Kovermann (Dept. of Chemistry), Dennis Pingen (Dept.

of Chemistry), Jennifer Randerath (Dept. of Psychology), Tanja Rinker (Dept. of Linguistics) and Julián Torres-Dowdall (Dept. of Biology)

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Un/certainty joint workshop of the Martin Buber Society of Fellows in the Humanities (Hebrew University of Jerusalem, Israel) and the Zukunftskolleg, co-organised by our fellows and Associated Fellows Dennis Pingen (Dept. of Chemistry), Tanja Rinker (Dept. of Linguistics), Julián Torres-Dowdall (Dept. of Biology) and Maria Zhukova (Dept. of Literature)

28 June

Intended uncertainty: Moral and institutional

public lecture by Wolfgang Seibel (University of Konstanz) within the framework of the joint workshop of the Martin Buber Society of Fellows in the Humanities (Hebrew University of Jerusalem, Israel) and the Zukunftskolleg

3 July

Ethics on stage symposium with Clare Wallace (Charles University, Czech Republik) and Graham Saunders (University of Birmingham, UK) co-organised by Julia Boll (Fellow/Dept. of Literature) and Anja Hartl (Dept. of Literature)

11 July

Estimating covariance matrices with linear lecture by Caroline Uhler (Massachusetts Institute of Technology, USA), organised by Roxana Halbleib (Fellow/Dept. of Economics) Talks
Talks

Talks

Carolin Antos

Is the era of undecidability results really over? Studierendenkolleg "UnDecidability", University of Hamburg (Germany), 29–30 June 2018

Modern set theory and Lorenzen's critique of actual infinty

meeting "Paul Lorenzen: Mathematician and Logician", University of Konstanz (Germany), 8–9 March 2018

Living in an inconsistent cosmos: The case of pluralism in modern set theory (with Daniel Kuby), workshop "Inconsistency and Scientific Pluralism", Center for Logic and Philosophy of Science, Ghent University (Belgium), 8 November 2017

Tuhin Basu

Probing modified bandstructure of luminescent semiconductor-metal hybrid nanostructures at the single particle level by scanning tunnelling microscopy poster presentation, 5th Nanotoday Conference, Hawaii (USA), 6–10 December 2017

Ianina Beiser-McGrath

Who listens? Ethnic diversity and media freedom European Political Science Association

European Political Science Association Annual Conference, Vienna (Austria), 22 June 2018

Ethnic coalitions and the logic of political survival in authoritarian regimes (with Nils Metternich), workshop "Civilian Activism in Civil Wars", University of Konstanz (Germany), 23 February 2018

Wie entstehen Bürgerkriege? Einblick in die Konfliktforschung workshop at the university day of the

Workshop at the university day of the Hegau-Bodensee Seminar in cooperation with the Zukunftskolleg, University of Konstanz (Germany), 8 November 2017

For whose benefit? How local ethnic demography shapes political favoritism in Africa (with Carl Müller-Crepon and Yannick Pengl), workshop "New Perspectives on the Micro-Dynamics of Political Violence", University of Konstanz (Germany), 22 September 2017

Klaus Boldt

10-12 May 2018

Dynamiken auf verschiedenen Zeitskalen: Photoaktive Nanostrukturen mit zunehmender Komplexität Kiel University (Germany), July 2018

Morphogenesis of anisotropic nano-particles: Self-templating via non-classical, fibrillar Cd2Se intermediates Bunsen Conference, Hannover (Germany),

Non-classical nucleation of CdSe nanocrystals and the role of magic-sized clusters in the presence of protic additives invited talk hosted by Dr. Asaph Widmer-Cooper, University of Sydney (Australia), 9 October 2017

Non-classical nucleation of CdSe nanocrystals and the role of magic-sized clusters in the presence of protic additives poster presentation at the symposium "FQDots17", Barcelona (Spain), 4–8 September 2017

Julia Boll

European responses to the European migrant crisis

chaired panel at "Theatre and Migration. International Federation of Theatre Research (FIRT/IFTR) World Congress", University of Belgrade (Serbia), 9–13 July 2018

Homo sacer et le théâtre: Entre Shakespeare's 'Richard II' et Théâtre du Soleil's 'Le Dernier Caravanserail'

conference "Journée Simmel", Centre Georg Simmel (EHESS), Paris (France), 18 June 2018

pro.log: Salomé public talk at Theater Konstanz (Germany), 15 April 2018

Europe and the European Crisis Scottish Universities' International Summer School, University of Edinburgh (UK), 7 August 2017

Thomas Böttcher

Superkeime: Gefahren und Ursachen von Antibiotikaresistenzen 5. long night of science, University of Kons-

5. long night of science, University of Kor tanz (Germany), 23 June 2018

Small molecules modulating virulence and interspecies interactions
Kolloquium der Institute für Organische und Anorganische Chemie, Technical University of Braunschweig (Germany), 23 April 2018

Von Chemischen Duellen, plaudernden Mikroben und resistenten Keimen lecture series "Hinter den Kulissen", Universitätsgesellschaft Konstanz (Germany), 13 December 2017

Meine Mikroben und ich – wer hat hier eigentlich das Sagen? workshop at the university day of the Hegau-Bodensee Seminar in cooperation with the Zukunftskolleg, University of Konstanz (Germany), 8 November 2017

Bedrohung durch multiresistente Keime – Fiktion oder Realität?

10th intensive treatment day in Regensburg, university hospital Regensburg (Germany), 11 October 2017

Wie beeinflussen Bakterien unser Leben? public lecture at Kinder-Uni Konstanz 2017 (Germany), 6 October 2017

Small molecules and bacterial behaviour International Union of Pure and Applied Chemistry's (IUPACs) International Symposium on Bioorganic Chemistry (ISBOC-11), Konstanz (Germany), 28 September 2017

From algae to bacterial behaviour workshop "COST Action FA 1406 Phycomorph", Jena (Germany), 11 September 2017

Daniele Brida

Single-cycle autocorrelation in attosecond coherent nanotransport
Ultrafast Phenomena Conference, Hamburg (Germany), 16–20 July 2018

Wannier-Stark localization in bulk gallium arsenide induced by extreme mid-infrared fields

CLEO Conference, San Francisco (USA), 13 May 2018

Sub-optical-cycle control of light and matter colloquium, Max Born Institute, Berlin (Germany), 17 January 2018

María Cruz Berrocal

La materialidad del colonialismo moderno temprano en Asia-Pacífico: Un ejemplo en San Salvador de Quelang, norte de Taiwán 56th International Conference of Americanists, Salamanca (Spain), 15–20 July 2018

El proyecto arqueológico de Heping Dao-B, Keelung, Taiwan: 4000 años de historia conference "Il Ciclo Arqueología Española en el Exterior", National Archaeological Museum, Madrid (Spain), 29 May 2018

Un caso de estudio de secuencia arqueológica de larga duración: Heping Dao, Taiwan conference series "Prehistoria en Vivo", International Institute for Prehistoric Research of Cantabria (IIIPC), University of Cantabria (Spain), 19 April 2018

La conquista como fenómeno histórico transversal symposium, organised by Miguel Luque Talaván, Complutense University of Madrid

(Spain), 5 March 2018

First encounters in Oceania and their consequences (16th-17th centuries)
(with C. Sand), European Association of Archaeologists Annual Conference, Maastricht (The Netherlands), 31 August-3 September 2017

European presence in Taiwan in the 17th century: The colony of San Salvador de Kelang (with A. González and F. Valentin), European Association of Archaeologists Annual Conference, Maastricht (The Netherlands), 31 August—3 September 2017

Panteleimon Eleftheriou

Large groups are o-minimal trimester in Model Theory "Combinatorics and Valued Fields", Institut Henri Poincaré, Paris (France), 19 March 2018

Counting rational points in tame expansions of o-minimal structures by a dense set seminar "Structures algébriques ordonnées", Paris (France), 13 March 2018

Maroussia Favre

Using cultural theory and political network concepts to integrate three fables and realities of power into a formal model (with Brendon Swedlow and Marco Verweij), paper accepted, annual meeting of the Midwest Political Science Association (MPSA), Chicago (USA), 8 April 2018

Structures of values and beliefs in political networks

annual conference of the European Consortium for Political Research (ECPR), Oslo (Norway), 8 September 2017

Bianca Gaudenzi

Restitution as "second dispossession"? The restitution of Nazi-looted art in Austria, the German Federal Republic and Italy after WWII international workshop "Sequestration, Confiscation and Restitution in Wartime from WWI to the present", University of Naples (Italy), 13–15 June 2018

Restitution zwischen Erstattungsalltag und Gemeinschaftsbildung: Die Rückgabe geraubter Kulturgüter in der Bundesrepublik, Italien und Österreich, 1945–1998 South German Research Seminar (meeting of the Chairs of Contemporary History at the Universities of Frankfurt a.M.-Tübingen-Augsburg-Konstanz), Ellwangen (Germany), 1–2 February 2018

The restitution of looted cultural property in Austria, the German Federal Republic and Italy, 1945–1998 selection seminar for the scholarship fund of the Daimler and Benz Foundation, 25 January 2018

Denis Gebauer

'Non-classical' nucleation: The pre-nucleation cluster pathway
International School of Crystallization 2018
(ISC 2018), Granada (Spain), 21 May 2018

Polymer-controlled mineralization – towards target-oriented design of hybrid materials Sino-German Young-Scientist Forum "Polymer Chemistry in Functional Materials: Developments and Challenges", Shanghai (China), 11 May 2018

The role of bicarbonate in calcium carbonate mineralization
The Münster-Granada Discussion Meeting,
Granada (Spain), 30 November 2017

Liquid precursors in crystallization and their use in materials chemistry Faculty of Geosciences, Department of Earth and Environmental Sciences, University of Munich (Germany), 27 October 2017

On the pre-nucleation cluster pathway Wetsus Congress, Leeuwarden (The Netherlands), 10 October 2017

James Griffiths

An Indo-European complementiser in Turkish: Against the subordination analysis (with Güliz Güneş), workshop "Clause Typing and the Syntax-to-Discourse Relation in Head-Final Languages", Schloss Freudental, Allensbach-Freudental (Germany), May 2018

Reprise Fragments in Minimalism: An in-situ analysis

(with Güliz Güneş and Anikó Lipták), poster presentation, conference "Generative Linguistics in the Old World (GLOW) 41", Budapest (Hungary), April 2018

A minimalist investigation of reprise fragments (with Güliz Güneş and Anikó Lipták), paper presentation, workshop "Relating Elliptical Utterances to Information in Context" at the 40th Annual Meeting of the German Society of Linguistics (DGfS), Stuttgart (Germany), March 2018

Echo fragments (with Güliz Güneş and Anikó Lipták), paper presentation, workshop "Approaches to Fragments and ellipsis in spoken and written English" at the 7th Biennial International Conference on the Linguistics of Contemporary English, Vigo (Spain),

Roxana Halbleib

September 2017

Modelling realized covariance matrices with stochastic volatility latent factors 11th annual conference of the Society for Financial Econometrics (SoFiE)", University of Lugano (Switzerland), 12 June 2018

How informative is high-frequency data for tail risk estimation and forecasting?

11th annual conference of the Society for Financial Econometrics (SoFiE)", University of Lugano (Switzerland), 12 June 2018

Modelling realized covariance matrices with stochastic volatility latent factors international conference and summer school "Quantitative Finance and Financial Econometrics", Marseille (France), 30 May 2018

Modelling realized covariance matrices with stochastic volatility latent factors 11th International Conference on Computational and Financial Econometrics, London (UK), 17 December 2017

Fractal finance: A maverick look on financial markets

workshop "Challenges of Modern Economics and Finance: Taking Theory to Data", University of Konstanz (Germany), 20 October 2017

Estimating stable latent factor models by indirect inference conference "German Statistical Week", Rostock (Germany), 20 September 2017

Jolle W. Jolles

Individual heterogeneity in animal collectives international conference of the Society for Experimental Biology (SEB), Florence (Italy), 3 July 2018

Understanding individual differences in collective animal behaviour departmental seminar, University of Münster (Germany), 26 June 2018

The role of individual heterogeneity in collective animal behaviour departmental seminar, University of Bonn (Germany), 25 June 2018

The role of individual differences in collective animal behaviour poster presentation, von Humboldt network

meeting, Regensburg (Germany), 25 April 2018

Talks Talks

Claudius Kratochwil

Agouti-related peptide 2 drives convergent evolution of stripe patterns across cichlid fish radiations

7th Euro Evo Devo Conference, Galway (Ireland), 27 June 2018

How cichlids got their stripes ... and lost them again Redpath Seminar, McGill University,

Montreal (Canada), 13 April 2018 Stripeless drives convergent evolution of stripe patterns across cichlid fish radiations

sGENEVA workshop, German Centre for Integrative Biodiversity Research (iDiv), Leipzig (Germany), 18 December 2017 How cichlids got their stripes ... and lost

Dept. of Biology Seminar, University of Konstanz (Germany), 26 October 2017

Sven Lauer

Crosslinguistic variation in a minor sentence type: Melioratives in Dutch and German (with Erlinde Meertens), workshop on Non-Canonical Imperatives, Humboldt University of Berlin (Germany), 25-26 May 2018

'I believe' in a ranking-theoretic analysis of 'helieve'

21st Amsterdam Colloquium, University of Amsterdam (The Netherlands), 20-22 December 2017

The functional heterogeneity of interrogative sentences: An 'optimistic' approach 2nd workshop on Inquisitiveness Below and Beyond the Sentence Boundary, University of Amsterdam (The Netherlands), 18-19 December 2017

Biscuit conditionals, auestions, and biscuit-conditional questions Biscuit Conditionals Workshop, University of Hamburg (Germany), 20-21 October

Moore's paradox and hedging with 'I believe': An attempt workshop "Questioning Speech Acts", Konstanz (Germany), 14-16 September 2017

Bernard Lepetit

Lhcx genes: Tools to study retrograde signaling and photoprotection in diatoms invited talk in the group of Prof. Paul Falkowski, Rutgers University, New Brunswick (USA), 14 February 2018

Lhcx knockout mutants of the diatom Phaeodactylum tricornutum provide unexpected insights into the regulation and significance of photoprotection

Chlorophyll Fluorescence in Aquatic Sciences Meeting (AQ-UAFLUO II), hosted by the Climate Change Centre (C3), University of Technology Sydney (Australia), 5 December 2017

Lhcx knockout mutants of the diatom Phaeodactylum tricornutum provide unexpected insights into the regulation and significance of photoprotection German Botanist Conference, Kiel (Ger-

Doris Penka

many), 18 September 2017

The semantics and pragmatics of the scalar modifiers mindestens, wenigstens and zumindest in German Linguistics Colloquium, University of Stuttgart (Germany), 12 June 2018

The degree proform so in German equatives workshop "Reference beyond the DP: Towards a Crosslinguistic Typology of the Syntax and Semantics of Proforms" at the 40th annual meeting of the German Society of Linguistics (DGfS), Stuttgart (Germany), 9 March 2018

Ignorance inferences of at least and at most: Semantic or pragmatic? English Dept., University of Göttingen (Germany), 6 December 2017

The semantics of equatives in English and workshop "Microvariation in Semantics", Berlin (Germany), 6 September 2017

Torsten Pietsch

Non-equilibrium spin and charge transport phenomena in superconductor-ferromagnet hybrid structures German Research Foundation (DFG) March Meeting, Berlin (Germany), March 2018

Magnetic point-contact arrays and nanowires in high-frequency devices status workshop research network "Functional Nanostructures", Bad Herrenalb (Germany), October 2017

Ezgi Pınar

Labour politics in the midst of regime dis-

workshop "Authoritarianism and Resistance in Turkey, International Centre for Development and Decent Work", University of Kassel (Germany), 12 May 2018

Questioning the hegemonic potential of VET policies in Turkey

3rd The Role of State in Varieties of Capitalism (SVOC) International Conference, Central European University, Budapest (Hungary), December 2017

Lever for the economic growth: Vocational and technical education policies in Turkey 8th Annual Conference in Political Economy, Berlin School of Economics and Law (IIPPE), Berlin (Germany), September 2017

Dennis Pingen

All-catalytic routes from microalgae as renewable resource for new materials University of St. Andrews, Scotland (UK), 5 July 2018

All-catalytic routes from microalgae as renewable resource for new materials conference "Young Investigators in Lipid Science", Düsseldorf (Germany), 14-15 May 2018

All-catalytic routes from microalgae as renewable resource for new materials Einstein Workshop, Berlin (Germany), 9-10 November 2017

All-catalytic routes from microalgae as renewable resource for new materials University of Dortmund (Germany), 25 October 2017

Gianluca Rastelli

Quantum phase transition with dissipative frustration . conference "Quantum Thermodynamics and Transport", Mainz (Germany), 8 May 2018

Nonequilibrium effects in mesoscopic systems with charge-vibration interactions Laboratory of Physical and Chemical Theories (LPCT), University of Lorraine, Nancy (France), 6 April 2018

Tunable ohmic environment using Josephson junction chains German Physical Society (DPG) Spring Meeting, Berlin (Germany), 15 March 2018

Charge-vibration interaction in normal-superconductor quantum dots German Physical Society (DPG) Spring Meeting, Berlin (Germany), 12 March 2018

Quantum phase transition with dissipative frustration American Physical Society (APS) March Meeting, Los Angeles (USA), 5 March 2018

Ground state cooling for many mechanical modes Gordon Research Conference, Ventura L.A. (USA), 1 March 2018

Dissipation phase transition with quantum frustration

Institut Néel, CNRS, Grenoble (France), 8 September 2017

Jennifer Randerath

Behavioral and neuronal correlates of motor cognition

Experimental/Neuro-cognitive psychology colloquium, University of Munich (Germany), 30 May 2018

Denken und Bewegen in der Klinischen Neuropsychologie lecture "Hinter den Kulissen", Universitäts-

gesellschaft Konstanz (Germany), 26 April 2018

Move it! - Einblicke in die Kognitive und Klinische Neuropsychologie workshop at the university day of the Hegau-Bodensee Seminar in cooperation with the Zukunftskolleg, University of Konstanz (Germany), 8 November 2017

Werkzeugapraxie nach links- sowie rechtshemisphärischen Hirnschädigungen annual conference of the German Society of Neuropsychology, Konstanz (Germany), 22 September 2017

Philip Rathgeb

From periphery to the core: Trade unions and competitive internal devaluation in the Eurozone annual conference of the Society of Advanced Socio-Economics (SASE), Doshisha University, Kyoto (Japan), 23-25 June 2018

Organized labour and the Eurozone crisis workshop "Unions and the Politics of Inequality", University of Geneva (Switzerland), 13-14 April 2018

Strong governments, precarious workers: Labor market policy in the era of liberalization book presentation, European Social Policy Network (ESPANET) Austria, Johannes Kepler University Linz (Austria), 5-6 April 2018

The social and economic policy agenda of the Austrian ÖVP-FPÖ government interview podcast, radio FM4, 22 December 2017

Compulsory membership in Austrian social partnership interview, radio FM4, 25 October 2017

Özlem Savaş

Digital networks of affective and cosmopolitan politics within the context of recent displacement from Turkey European Communication Research and Education Association's (ECREA) Diaspora, Migration and Media Conference, Bilbao (Spain), 2-3 November 2017

Networked imaginations and practices of 'good life' on social media conference "Media/Practices/Commoning", Konstanz (Germany), 9-11 October 2017

Resistance in exile: Strategies of the new diaspora and solidarity(s) between Germany and Turkey round discussion, Rosa Luxemburg Stiftung, Berlin (Germany), 5 October 2017

Sebastian Schutte

Does indiscriminate violence fuel religious conflict? Evidence from Kenya German Institute of Global and Area Studies, Hamburg (Germany), 27 June 2018

Elena Sturm

Structural chemistry and morphogenesis of self-assembled mesocrystals Petersburg Nuclear Physics Institute, Saint Petersburg (Russia), 29 March 2018

Structural chemistry and morphogenesis of self-assembled mesocrystals Center of Advanced Science, Saint Petersburg State University (Russia), 27 March 2018

Structural chemistry and morphogenesis of self-assembled mesocrystals Department of Chemistry, Dresden University of Technology (Germany), 6 February 2018

Dental calculus Dental Milestones Guaranteed (DMG), Hamburg (Germany), 14 November 2017

Self-assembled mesocrystals: A matter of orientation

SFB 840 seminar "Von partikulären Nanosystemen zur Meso-technologie", University of Bayreuth (Germany), 30 October 2017

Self-assembled mesocrystals: Structural and morphogenetic aspects Deutsches Elektronen-Synchrotron (DESY), Leila Whitely Hamburg (Germany), 25 September 2017

Jolene Tan

Baker's Town: A novel game to test theories and models of cooperation 30th Annual Meeting of the Human Behavior and Evolution Society, Amsterdam (The Netherlands), 4-7 July 2018

Julián Torres Dowdall

Ecological correlates of the molecular evolution of opsin genes in Tanganyikan cichlids Alpine Tanganyikan Cichlid Symposium, Konstanz (Germany), 18-20 July 2018

Selección natural y el origen de la diversidad biológica: La radiación adaptativa de las Mojarras (Amphilophus cf citrinellus) National Autonomous University of Nicaragua, Managua (Nicaragua), 8 February 2018

Consequences of dark-rearing on opsin gene expression in Midas cichlids (with N. Karagic, A. Härer and A. Meyer), Cichlid Science Symposium, Prague (Czech Republic), 6 September 2017

Convergent phenotypic evolution of visual sensitivity in seven Neotropical cichlid fishes is driven by different genes (with A. Härer and A. Meyer), Cichlid Science Symposium, Prague (Czech Republic), 6 September 2017

Nadir Weber

Von Türwachen zu Türöffnern? Die Rolle der zugewandten Orte Neuchâtel und Genf bei der Konstruktion des eidgenössischen Nationenkonzepts im 18. und frühen 19. Jahrhundert

(with Nadja Ackermann and Peter Lehmann), "Suisse politique, Suisse savante, Suisse imaginaire: Cohésion et disparité du Corps helvétique au 18e siècle", colloquium of the Swiss Society for the Research on the 18th Century, Neuchâtel (Switzerland), 23-25 November 2017

Choix divin ou loterie aveugle? Tirage au sort et dépassement de la contingence dans la République de Berne (XVIIe-XVIIIe siècles) international colloquium "Expérience du tirage au sort en Suisse et en Europe". Institute of Political Science, History and Internationality (IEPHI), University of Lausanne (Switzerland), 27-28 October 2017

Forms of institutional violence Cambridge University (UK), May 2018

Migrant figures in europe Europe in the globalized world colloquium, University of Konstanz (Germany), January 2018

Talks | Publications

Keshun Zhang

Downloading Chinese wisdom invited interview by the University of Konstanz (Germany), June 2018

Fuel in the fire: The effects of anger on risky decision making School of Educational Science, Gannan Normal University, Ganzhou (China), May 2018

Fuel in the fire: The effects of anger on risky decision making School of Business, Jiangnan University, Wuxi (China), May 2018

How to fit in when you join a lab abroad invited interview by R. Kwok from Nature (published in: Nature, 557(7706), p. 599 2018), March 2018

The differential effects of anger on trust: A cross-cultural comparison of the effects of gender and social distance (with T. Goetz, S. S. Martiny, F. Chen, A. Sverdlik and J. Lu), 12th Biennial Conference of the Asian Association of Social Psychology, Auckland (New Zealand), August 2017

Emotion and decision making School of Psychology and Cognitive Science, East China Normal University, Shanghai (China), August 2017

Maria Zhukova

A mirror for the hero or a window to the other world? TV concepts in Soviet film and literature

Tgth Association for Slavic, East European, & Eurasian Studies (ASEEES) Annual Convention, Chicago (USA), 9-12 November 2017

Transgressive TV-poetics in Soviet and Post-Soviet Russian film, theatre and art presentation of the panel at the 49th Association for Slavic, East European, & Eurasian Studies (ASEEES) Annual Convention at the slavic colloquium, University of Konstanz (Germany), 7 November 2017

An der eigenen (Netz-)Haut gespürt: Fernsehen als Grenzfall in der DDR-Literatur (Armin Müller-Stahl, Christa Wolf, Sarah Kirsch) Wednesday seminar, Literature Archive Marbach (Germany), 18 October 2017

Publications

Carolin Antos

Antos, Carolin, 2018. Class forcing in class theory. In: Antos, Carolin, ed., Sy-David Friedman, ed., Radek Honzik, ed., Claudio Ternullo, ed. The hyperuniverse project and maximality. Basel: Birkhäuser, pp. 1-16.

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Tuhin Basu

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Basu, Tuhin Shuvra, Simon Diesch, Elke Scheer, 2018. *Single-electron transport* through stabilised silicon nanocrystals. In: Nanoscale. 10(29), pp. 13949-13958. doi: 10.1039/c8nr01552j

Klaus Boldt

Kunkel, Marius, Stefan Schildknecht, Klaus Boldt, Lukas Zeyffert, David Schleheck, Marcel Leist, Sebastian Polarz, 2018. Increasing the resistance of living cells against oxidative stress by nonnatural surfactants as membrane guards. In: ACS Applied Materials & Interfaces. 10(28), pp. 23638-23646. doi: 10.1021/acsami.8b07032

Trepka, Bastian, Philipp Erler, Severin Selzer, Tom Kollek, Klaus Boldt, Mikhail Fonin, Ulrich Nowak, Daniel Wolf, Axel Lubk, Sebastian Polarz, 2018. Nanomorphology effects in semiconductors with native ferromagnetism: Hierarchical europium (II) oxide tubes prepared via a topotactic nanostructure transition. In: Advanced Materials. 30(1), 1703612. doi: 10.1002/adma.201703612

Wurmbrand, Daniel, Jörg Wolfram, Anselm Fischer, Rose Rosenberg, Klaus Boldt, 2018. Morphogenesis of anisotropic nanoparticles: Self-templating via non-classical, fibrillar Cd2Se intermediates. In: Chemical Communications. 54(53), pp. 7358-7361. doi: 10.1039/c8cc02058b

Yuan, Gangcheng, Daniel E. Gómez, Nicholas Kirkwood, Klaus Boldt, Paul Mulvaney, 2018. Two mechanisms determine quantum dot blinking. In: ACS Nano. 12(4), pp. 3397-3405. doi: 10.1021/acsnano.7b09052

Julia Boll

Boll, Julia, 2018 (forthcoming). Homo sacer et le théâtre: Entre Shakespeare's 'Richard II' et Théâtre du Soleil's 'Le Dernier Caravanserail'. In: Grief. Revue sur les mondes du droit.

Boll, Julia, 2018 (forthcoming). Making the audience cry: Witnessing violence and the ethics of compelled empathy. In: Aragay, Mireia, ed., Paola Botham, ed., Avraham Oz, ed., Lloyd Peters, ed., José Ramón Prado, ed. Political performances: Theory and practice (Vol. II). Leiden: Brill.

Boll, Julia, 2018 (forthcoming). The object's voice. In: Farzin, Sina, ed., Roslynn Haynes, ed., Susan Gaines, ed. Drivers and driven: What contemporary fiction reveals about science in society.

Boll, Julia, 2018 (forthcoming). The sum of our parts: The voices of the human genre project. In: European Journal of English Studies.

Boll, Julia, 2018 (forthcoming). [Review of the book: Frank, Kerstin, ed., Caroline Lusin, ed, 2017. Finance, terror, and science on stage. Current public concerns in 21st-century British drama. Tübingen: Narr Francke Attempto.] In: Anglia.

Boll, Julia, 2018 (forthcoming). [Review of the book: Lavender, Andy, 2014. Performance in the twenty-first century. Theatres of engagement. Palgrave Macmillan.] In: International Journal of Performance Art and Digital Media.

Boll, Julia, 2018 (forthcoming). [Review of the book: Soncini, Sara, 2014. Forms of conflict. Contemporary Wars on the British Stages. Palgrave Macmillan.] In: Journal of Contemporary Theatre and Drama in English.

Boll, Julia 2018. Conference Report "Nation, nationhood and theatre": 26th Annual Conference of the German Society for Contemporary Theatre and Drama in English (CDE). In: The ESSE Messenger Online: essenglish. org/messenger/blog/conference-report-nation-nationhood-and-theatre/

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Thomas Böttcher

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Szamosvári, Dávid, Thomas Böttcher, 2017. An unsaturated quinolone n-oxide of pseudomonas aeruginosa modulates growth and virulence of staphylococcus aureus. In: Angewandte Chemie. 129(25), pp. 7377-7381. doi: 10.1002/ange.201702944

Daniele Brida

Budweg, Arne, Dinesh Yadav, Alexander Grupp, Alfred Leitenstorfer, Maxim Trushin, Fabian Pauly, Daniele Brida, 2017. Control of excitonic absorption by thickness variation in few-layer GaSe. arXiv preprint arXiv:1712.06330.

Bühler, Johannes, Jonas Allerbeck, Gabriel Fitzky, Daniele Brida, Alfred Leitenstorfer, 2018. Terahertz shockwaves generated by a precise subcycle cut of the electric field. In: Optica. 5(7), pp. 821-824. doi: 10.1364/OPTICA.5.000821

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Grupp, Alexander, Arne Budweg, Marco P. Fischer, Jonas Allerbeck, Giancarlo Soavi, Alfred Leitenstorfer, Daniele Brida, 2018. Broadly tunable ultrafast pump-probe system operating at multi-kHz repetition rate. In: Journal of Optics. 20(1), 014005. doi: 10.1088/2040-8986/aagbo7

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Schmidt, Christian, Johannes Bühler, Alexander-Cornelius Heinrich, Jonas Allerbeck, Reinold Podzimski, Daniel Berghoff, Torsten Meier, Wolf Gero Schmidt, Christian Reichl, Werner Wegscheider, Daniele Brida, Alfred Leitenstorfer, 2018. Signatures of transient Wannier-Stark localization in bulk gallium arsenide. In: Nature Communications. 9(1), 2890. doi: 10.1038/s41467-018-05229-x

Storz, Patrick, Jonas Tauch, Marcel Wunram, Alfred Leitenstorfer, Daniele Brida, 2017. Parametric amplification of phase-locked few-cycle pulses and ultraviolet harmonics generation in solids at high repetition rate. In: Laser & Photonics Reviews. 11(6), 1700062. doi: 10.1002/lpor.201700062

María Cruz Berrocal

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Herrero, Frederique Valentin, Cheng-hwa.
Tsang, A. Gorostiza, E. Campoy, R. Pereira,
Antonio Uriarte González, Martín, K.
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period. In: International Journal of Historical
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Udith Dematagoda

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Panteleimon Eleftheriou

Eleftheriou, Pantelis E., 2018. Semilinear stars are contractible. In: Fundamenta Mathematicae. 241(3), pp. 291-312. doi: 10.4064/fm394-10-2017

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Maroussia Favre

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Bianca Gaudenzi

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Gaudenzi, Bianca, 2017. Il ritorno della storiografia 'Hitler-centrica'? In: Il Mestiere di Storico: Journal of the Italian Society for the Study of Contemporary History. IX(2).

Gaudenzi, Bianca, 2017. Tra autarchia e vita comoda. La politicizzazione della comunicazione commerciale nella Germania nazionalsocialista e nell'Italia fascista. In Stefano Cavazza, ed., Filippo Triola ed. Parole sovrane. Comunicazione politica e storia contemporanea in Italia e Germania. In: Bologna: Il Mulino, pp. 135-156.

Denis Gebauer

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James Griffiths

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Roxana Halbleib

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Gisela Kopp

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Dennis Pingen

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Jennifer Randerath

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Gianluca Rastelli

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Grants and Awards

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Sebastian Schutte

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Elena Sturm

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Jolene Tan

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Iulián Torres-Dowdall

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Grants and Awards

External grants and awards that our fellows obtained during the last academic year.

Carolin Antos

University of Konstanz, Young Scholar Fund, funding of the project "Pre-demonstrative reasoning and argumentation in mathematics", 42 200 EUR (funding period 01|2018-12|2018)

Klaus Boldt

German Research Foundation (DFG), funding of the project "Cold injection synthesis of nanoheterostructures based on cluster decomposition", 218 450 EUR (funding period 04|2018-03|2021)

Julia Boll

Manchester Metropolitan University – Centre for Excellence in Learning and Teaching, funding of the project "Creative pedagogy as learning enhancement in the arts and humanities" (co-applicant with Joshua Edelman, Manchester Metropolitan University), 2 011 GBP (05|2018)

Thomas Böttcher

Baden-Württemberg Stiftung, funding of the project "Novel antibiotics targeting multidrug-resistant Neisseria gonhorrhoeae" (co-PI with Christof Hauck and Thomas U. Mayer), 555 000 EUR (funding period 10|2018-09|2021)

German Research Foundation (DFG), Emmy Noether Programme extension (plus one year), 273 629 EUR (funding period 06|2019–05|2020)

Thieme Chemistry Journal Award 2018

Vector Stiftung, funding for the project "Chemical response of gut microbiota to human hormones", 91 900 EUR (funding period 12|2018-02|2020)

María Cruz Berrocal

German Research Foundation (DFG), funding of the project "An archaeology of first European contact in the Pacific", 274 924 EUR (funding period 2018–2019)

University of Cantabria, funding of the project "Networks across Oceania: Studying the impacts of the earliest European presence in the western Pacific, 16th-17th centuries AD", 160 000 EUR (funding period 2018–2022)

Bianca Gaudenzi

German Research Foundation (DFG), threeyear full-time research position plus travel, conference and workshop funding for the project "The restitution of looted cultural property in the German Federal Republic, Italy and Austria, 1945-1998", 299 650 EUR (funding period 10|2017-10|2020)

Denis Gebauer

Landesbausparkasse Südwest and foundation "Bauen und Wohnen an der Universität Konstanz", Environment Award 2018, 7 500 EUR (07|2018)

Roxana Halbleib

German Statistical Society, Wolfgang-Wetzel-Award 2017, 1 000 EUR (09|2017)

Invitation to attend the 6th Lindau Nobel Laureate Meeting on Economic Sciences (08|2017)

University of Konstanz – Graduate School of Decision Sciences, funding for co-organizing the international conference and summer school "Quantitative Finance and Financial Econometrics", 6 000 EUR (05|2018)

Oleksandra Kukharenko

German Research Foundation (DFG) through grant CRC 969, funding of the project "Advanced state characterization of proteins and protein complexes", 95 000 EUR (funding period 04|2018–12|2019)

Philip Rathgeb

German Research Foundation (DFG), threeyear full-time research position plus travel, conference and workshop funding for the project "When populism meets government: The social policy impact of the radical right in Europe", 315 114 EUR (funding period 02|2019-01|2022)

Özlem Savaş

ZeM – Brandenburg Center for Media Studies, visiting fellowship, project "Digital spaces of intimacy, affinity, and affective politics of new migrants from Turkey" (12|2017–12|2018)

Antje Strauß

German Research Foundation (DFG), three-year full-time research position plus travel, conference and workshop funding for the project "The role of theta oscillations for prelexical abstraction", 238 250 EUR (funding period 10|2018-09|2021)

Julián Torres-Dowdall

University of Konstanz, Young Scholar Fund, 23 617 EUR (2017)

Nadir Weber

Burgergemeinde Bern, subsidies for the volume "Beobachten, Vernetzen, Verhandeln", 2 000 CHF (published 08|2018)

Schweizerische Gesellschaft für Geschichte, subsidies for the volume "Beobachten, Vernetzen, Verhandeln", 8 000 CHF (published 08|2018)

Maria Zhukova

German Academic Exchange Service (DAAD), funding for conference travel to ASEEES Convention in Chicago, 9-12 November 2017, 1 800 EUR

Feaching Teaching

Teaching

Carolin Antos

SS 2018: Platons Theätet, seminar SS 2018: Genauer gesagt: Formale Methoden in der Philosophie, seminar WS 2017|18: Descartes Meditationes, seminar WS 2017|18: Formale Logik, seminar

WS 2017|18: Mathematische Logik, Mengenlehre und Modelltheorie, seminar

una Modelitheorie, semin

Klaus Boldt

SS 2018: Neuere Arbeiten auf dem Gebiet der Synthese und der Physikalischen Chemie von Nanokristallen, seminar

SS 2018: Synthese und Physikalische Chemie von Nanokristallen, academic supervision

WS 2017|18: Current issues and methods in nanoscience, lecture and practical course

WS 2017|18: Neuere Arbeiten auf dem Gebiet der Synthese und der Physikalischen Chemie von Nanokristalle, seminar

WS 2017|18: Synthese und Physikalische Chemie von Nanokristallen, academic supervision

Julia Boll

WS 2017|2018: Theatre/Theory, seminar

Thomas Böttcher

SS 2018: Naturstoffisolation und Strukturaufklärung, academic supervision

SS 2018: Organische Chemie für Biologen, lecture and tutorial

SS 2018: Neuere Arbeiten aus dem Gebiet der Naturstoffisolation und Strukturaufklärung, seminar WS 2017|18: Naturstoffisolation und Strukturaufklärung, academic supervision

WS 2017|18: Neuere Arbeiten auf dem Gebiet der Naturisolation und Strukturaufklärung, seminar

Panteleimon Eleftheriou

WS 2017|18: Modelltheorie, doctoral seminar

Denis Gebauer

SS 2018: Auf dem Gebiet der Physikalischen Chemie: Phasenumwandlung und Kristallisation, academic supervision

SS 2018: Kolloquium Physikalische Chemie arbeitsgruppenübergreifendes Seminar über neuere Forschungsergebnisse, research colloquium

WS 2017|2018: Kolloquium Physikalische Chemie arbeitsgruppenübergreifendes Seminar über neuere Forschungsergebnisse, research colloquium WS 2017|2018: Physikalische Chemie IV, lecture and tutorial

James Griffiths

SS 2018: Ellipsis and related topics, seminar

SS 2018: Morphology II, seminar WS 2016|17: Syntax II, seminar

WS 2016|17: Syntax III: Topics in ellipsis, seminar

Roxana Halbleib

SS 2018: Econometrics colloquium, doctoral seminar WS 2017|18: Big data in economics and finance, seminar WS 2017|18: Econometrics colloquium, doctoral seminar WS 2017|18: Financial econometrics, lecture

Claudius Kratochwil

SS 2018: Journal club: Evolution and zoology, seminar WS 2017|18: Journal club: Evolution and zoology, seminar WS 2017|18: Methods in biology, lecture

Oleksandra Kukharenko

WS 2017|18: Python block course, lecture

Andrea Lailach-Hennrich

SS 2018: G.W.F. Hegels Phänomenologie des Geistes, seminar

SS 2018: Lüge und Täuschung, seminar

WS 2017|18: Anerkennung – Subjekt und Gesellschaft. Zu einem sozialphilosophischen Schlüsselbegriff,

WS 2017|18: Grundfragen der Ethik, seminar

WS 2017|18: Jason Stanley: How propaganda works, seminar

WS 2017|18: Kants Philosophie des Geistes, seminar

Sven Lauer

WS 2017|2018: Einführung in die Linguistik, lecture WS 2017|2018: Semantics III: The meaning of conditional structures, seminar

Bernard Lepetit

SS 2018: Meeresbiologisch/Botanische Exkursion in die Bretagne, excursion

WS 2017|2018: Modern methods in photosynthesis research, lecture and practical course

Doris Penka

WS 2017|18: Einführung in die Linguistik, lecture WS 2017|18: Semantik II, seminar

Ezgi Pınar

SS 2018: Selected topics in European Union and EU-Turkey relations, seminar

Denis Pingen

SS 2018: Controversial and critical views on global environmental issues, seminar WS 2017|18: Controversial and critical views on global environmental issues, seminar

Jennifer Randerath

SS 2018: Motorische Kognition, research colloquium WS 2017|18: Apraxie, block course, seminar WS 2017|18: Behavioral and neuronal correlates of Motor Cognition, seminar WS 2017|18: Motorische Kognition, research colloquium

Philip Rathgeb

SS 2018: Comparative Political Economy, research workshop

Gianluca Rastelli

SS 2018: Quantentransport, lecture and tutorial

Elena Sturm

SS 2018: Materialanalytik, lecture and tutorial WS 2017|18: Nanochemistry and -analytics, lecture and practical course

Margaret Thomas

WS 2017|18: Modelltheorie, doctoral seminar

Julián Torres-Dowdall

SS 2018: Advanced course: Quantitative methods in marine behavioural ecology, lecture with colloquium SS 2018: Advanced Course: Quantitative methods in marine behavioural ecology, practical course WS 2017|18: Eco-Evolutionary dynamics, seminar

Leila Whitley

WS 2017|18: Race, nation, gender; seminar

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Director of the EPSRC Research and Training Centre in Physical Sciences for Health, University of Birmingham, UK.
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Honorary Professor at the
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Founder of the Lurija Institute, University of Konstanz Senator of Honour, University of Konstanz.

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Member of the Committee for Strategic Planning, Leibniz Gemeinschaft, Berlin.

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ge, the Senior Fellows profit from the impulses provided by the younger generation and vice

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Dept. of Chemistry Indian Institute of Technology Kanpur, India nominated by Jörg S. Hartig

Klaus von Heusinger

Dept. of German Language and Literature University of Cologne, Germany nominated by Gerhart von Graevenitz

Sabine von Heusinger

Dept. of History University of Cologne, Germany nominated by Gerhart von Graevenitz

Associated Fellows

Young researchers of the University of Konstanz who have been awarded within the Zukunftskolleg's funding programmes and Bridge Fellows are Associated Fellows of the Zukunftskolleg. Ph.D. students or part of the project staff of a fellow as well as other cooperation partners of both fellows and Senior Fellows can also be appointed as Associated Fellows.

Raúl Acosta-Garcia

Dept. of History and Sociology upon application

Geoffroy Aubry

Dept. of Physics Mentorship

Tina Bögel

Dept. of Linguistics Mentorship

Kathrin Breuing

Dept. of Economics Mentorship

Daniele Brida

Dept. of Physics upon application

Anselm Crombach

Dept. of Psychology Mentorship

María Cruz Berrocal

Dept. of History and Sociology upon application

Franziska Doll

Dept. of Chemistry Doctoral Fellowship

Giulia Fabrini

Dept. of of Mathematics and Statistics Mentorship

Maroussia Favre

Dept. of Politics and Public Administration upon application, Bridge Fellowship

Stefan Fischer

Dept. of Philosophy Mentorship

Simon Geigges

Dept. of Chemistry Doctoral Fellowship

Lucia Görke

Dept. of Politics and Public Administration Doctoral Fellowship

Nora Hangel

Dept. of Philosophy upon application

Konstantin Käppner

Dept. of Politics and Public Administration Doctoral Fellowship and Manfred Ulmer Scholarship

Jeff Kochan

Dept. of Philosophy upon application

Sasha Kosanic

Dept. of Biology Bridge Fellowship, upon application

Michael Kovermann

Dept. of Chemistry upon application, Mentorship

Annika Krüger

Dept. of Chemistry Doctoral Fellowship Andrea Lailach-Hennrich

Dept. of Philosophy upon application

Sandro Liniger

Dept. of History and Sociology Mentorship

Carlotta Martelli

Dept. of Biology Mentorship

Morgane Nouvian

Dept. of Biology Mentorship

Fabian Offensperger

Dept. of Biology **Doctoral Fellowship**

Nathalie Popovic

Dept. of Psychology **Doctoral Fellowship**

Marco Paoli

Dept. of Biology Mentorship

Ezgi Pınar

Dept. of Politics and Public Administration Bridge Fellowship

Tanja Rinker

Dept. of Linguistics upon application

Antje Rumberg

Dept. of Philosophy Mentorship

Ioanna Salvarina

Dept. of Biology Mentorship

Özlem Savaş

Dept. of Literature Bridge Fellowship

Inga Schalinski

Dept. of Psychology Mentorship

Michael Smith

Dept. of Biology Mentorship

Antje Strauß

Dept. of Linguistics Bridge Fellowship

Kathrin Stuber

Dept. of Chemistry Manfred Ulmer Scholarship

Andreas Trotzke

Dept. of Linguistics Mentorship

Moritz von Brescius

Dept. of History and Sociology upon application

Keshun Zhang

Dept. of Empirical Educational Research Bridge Fellowship

Maria Zhukova

Dept. of Literature Bridge Fellowship, upon application

Alumni

The Zukunftskolleg's purpose is to provide early career researchers with everything they need to build an academic career. The careers of former members show that we are on the right track.

Unai Atxitia Macizo (2014 - 2016)

Principal Investigator at the Collaborative Research Center/ Transregio 227 'Ultrafast Spin Dynamics'

Free University of Berlin, Germany

Brendan Balcerak Jackson (2014 - 2015)

Assistant Professor at the Dept. of Philosophy University of Miami, USA

Magdalena Balcerak Jackson (2013-2015)

Assistant Professor at the Dept. of Philosophy University of Miami, USA

Karim J. Becher (2008-2013)

Professor at the Dept. of Mathematics and Computer University of Antwerp, Belgium

Gunhild Berg (2009 - 2013)

Researcher at the Institute of German Studies University of Innsbruck, Austria

Julien Bernard (2013-2015)

Maître de conférences at the Dept. of Philosophy University of Aix-Marseille, France

Francesca Biagioli (2014-2017)

Researcher at the Dept. of Philosophy University of Vienna, Austria

Martin Bruder (2010-2013)

Head of Dept. German Institute for Development Evaluation (Deval), Bonn, Germany

Joanna Chojnicka (2013-2015)

Research Fellow at the Faculty of Linguistics and Literary Studies

University of Bremen, Germany

Monika Class (2014-2016)

Junior Professor at the Dept. of **English and Linguistics** University of Mainz, Germany

Eleanor Coghill (2010-2016)

Professor at the Dept. of Linguistics and Philology University of Uppsala, Sweden

Maité Crespo García (2014-2016)

Newton International Fellow at MRC Cognition and Brain Sciences Unit University of Cambridge, UK

Sarang Dalal (2011-2015)

Associate Professor at the Center of Functionally Integrative

Neuroscience Aarhus University, Denmark

Martin Dege (2014-2016)

Department of Educational Science University of Potsdam, Germany

Research Associate at the

Martin Elff (2013-2015)

Professor and Chair of the Dept. of Political Sociology Zeppelin University, Friedrichshafen, Germany

Katherine Fama

(2015-2016)

Assistant Professor at the School of English, Drama & Film University College, Dublin, Ireland

Chiara Gianollo (2008-2011)

Senior Assistant Professor at the Dept. of Classical Philology and Italian Studies University of Bologna, Italy

Helen Gunter

(2008 - 2014)Project Manager at Edinburgh

Genomics University of Edinburgh, UK

Simon Hanslmayr (2010-2013)

Reader in Cognitive Neuroscience at the School of Psychology University of Birmingham, UK

Tamir Hassan (2013-2014)

Automated Publishing Researcher Hewlett-Packard Laboratories, Vienna, Austria

Barbara Hausmair (2014-2016)

Researcher State Office for Cultural Heritage Baden-Württemberg, Germany

Anne Hauswald (2008-2012)

Senior Scientist at the Center of Cognitive Neuroscience (CCNS) University of Salzburg, Austria

Wolf Hütteroth

(2014-2017) Group leader at the Department

of Genetics University of Leipzig, Germany

Laura Iapichino (2013-2015)

Alumni

of Mathematics and Computer Science Eindhoven University of Technology, Netherlands

Assistant Professor at the Dept.

Zhongbao Jian (2013 - 2015)

Professor at Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, China

Julia Jones (2008 - 2013)

Researcher at Dept. of Medical Biochemistry and Microbiology Uppsala University, Sweden

Andreas Karrenbauer (2010-2012)

Senior Researcher at the Dept. of Informatics Max Planck Institute, Saarbrücken, Germany

Karsten Lambers (2008-2013)

Associate Professor at the Dept. of Archaeology University of Leiden, the Netherlands

Benjamin Lambert (2013-2017)

Research Associate at the Dept. of Mathematics University College London, UK

Julia Langkau (2013-2016)

SNSF Ambizione Fellowship at Dept. of Philosophy University of Fribourg, Switzerland

Elliott Lash (2014-2016)

Research Fellow at the Dept. of Linguistics Maynooth University, Ireland

Philipp Leifeld (2013-2015)

Senior Lecturer at the School of Postgraduate Research Training University of Glasgow, UK

Shujun Li (2008-2011)

Deputy Director of Surrey Centre for Cyber Security University of Surrey, UK

Anna Lipphart

(2008-2010)Professor at the Institute of

Cultural Anthropology and Folkloristic Albert-Ludwigs-University of

Marilena Manea (2008-2013)

Freiburg, Germany

Chemist at Chromsystems Instruments & Chemicals GmbH München, Germany

Matteo Morganti (2008-2010)

Associate Professor at the Dept. of Philosophy University of Rome, Italy

Teague O'Mara (2013-2017)

Researcher

Max Planck Institute for Ornithology Radolfzell, Germany

Michael Pester (2014-2017)

Professor at the Institute of Microorganisms TU Braunschweig Head of the Dept. of Microorganisms Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures, Germany

Torsten Pietsch (2013-2018)

Project Leader in Research & Development ZEISS Group, Germany

Daniel Plaumann (2013-2016)

Professor at the Faculty of Mathematics University of Dortmund, Germany

Maria Daniela Poli (2015-2017)

Visiting Professor at the Italian Center (Italienzentrum) Free University of Berlin, Germany

Alumni 72

Networks Memberships

Beatriz Puente Ballesteros Aline Steinbrecher (2013-2015)

Assistant Professor at the Dept. of History University of Macau, China

Karsten Rinke

(2008-2013)

Head of the Dept. of Lake Research Helmholtz-Centre for Environmental Research, Magedeburg, Germany

Antonio Rotolo (2014 - 2016)

Founder and CEO Ludwig.guru

Paraskevi Salamaliki (2013 - 2015)

Research Fellow at the Dept. of **Economics** University of Patras, Greece

Samuel Schindler (2009-2011)

Associate Professor at the Centre for Science Studies Aarhus University, Netherlands

Nina Schneider

(2013-2015)

Senior Researcher at the Global South Studies Center University of Köln, Germany

Denis Seletskiy (2013-2017)

Assistant Professor at the Dept. of Engineering Physics Polytechnique Montréal, Canada

Ilja Serzants (2013-2015)

Postdoctoral Fellow at the Dept. of English University of Leipzig, Germany

Minmin Shen (2013-2017)

Applied Scientist Amazon.com Inc., USA

Ulrich Sieberer (2011-2016)

Professor at the Dept. of Politics University of Bamberg, Germany

(2013-2015)

Coach and Mentor Switzerland

Margarita Stolarova (2009-2015)

Group Leader for Childhood

Education German Youth Institute, München, Germany

Daniel Summerer (2011-2015)

Professor at the Dept. of Chemical Biology University of Dortmund, Germany

Edina Szöcsik (2013 - 2015)

Postdoctoral Research Fellow (SNSF Ambizione) at Dept. of Social Sciences University of Basel, Switzerland

Attila Tanyi (2010-2013)

Associate professor at the Dept. of Philosophy University of Tromsø, Norway

Margaret Thomas

(2011-2018)

Research Associate at the Dept. of Mathematics and Statistics McMaster University, Canada

Andreas Thum (2011-2017)

Professor for Genetics at the Dept. of Biology University of Leipzig, Germany

Alexander Titz (2010-2013)

Group Leader at the Dept. of Chemical Biology Helmholtz Institute for Pharmaceutical Research, Saarbrücken, Germany

Borbála Zsuzsanna Török (2009-2017)

Lise Meitner Position at the Faculty of Historical and **Cultural Studies** University of Vienna, Austria

Tilman Triphan (2016-2018)

Researcher at the Dept. of Genetics University of Leipzig, Germany

Grey Violet (2015-2017)

Thomas Voigtmann

(2009-2014) Professor at the Institute of Theoretical Physics

University of Düsseldorf, Germany

Nadir Weber (2016-2018)

Interim Professorship at the Dept. of History University of Lausanne, Switzerland

Nils B. Weidmann (2013-2015)

Professor at the Dept. of Politics and Public Administration University of Konstanz, Germany

Nathan Weisz (2008-2012)

Professor at the Centre for Cognitive Neuroscience University of Salzburg, Austria

Filip Wojciechowski (2013-2014)

Synthetic Organic Chemist at Gl Chemtec International Ltd. Oakville, Canada

Dominik Wöll (2008-2014)

Junior Professor at the Dept. of Chemistry RWTH University Aaachen, Germany

Network Memberships

In 2018, the Zukunftskolleg joined two international networks of Institutes for Advanced Studies: NetIAS and UBIAS. These memberships offer new links to partners around Europe and the whole world – they foster networking between similar institutes for new ideas and best practices. For the fellows of the Zukunftskolleg, it provides first-hand contact to renowned institutes around the world and encourages collaborations with international research partners.

NetIAS

(Network of European Institutes for Advanced Study)

NetIAS brings together 23 Institutes for Advanced Study across Europe. It was created in 2004 to stimulate a dialogue on IAS practices and possible forms of cooperation. NetIAS members share the objective of creating international and multidisciplinary learning communities. This openness and the freedom the fellows enjoy for their researches serve to promote scientific and intellectual exchanges. IAS tend to break from the intellectual routines, thus fostering the emergence of new perspectives, approaches and paradigms.

While sharing a common vision concerning the freedom of research, and representing

an alternative to the national institutions of higher education and research, the IAS offer a considerable diversity in terms of fellowship conditions. Furthermore, their scientific policies are characterized by different thematic or geographical orientations, a diverse openness to natural and hard sciences, or a special commitment to promoting early career researchers.

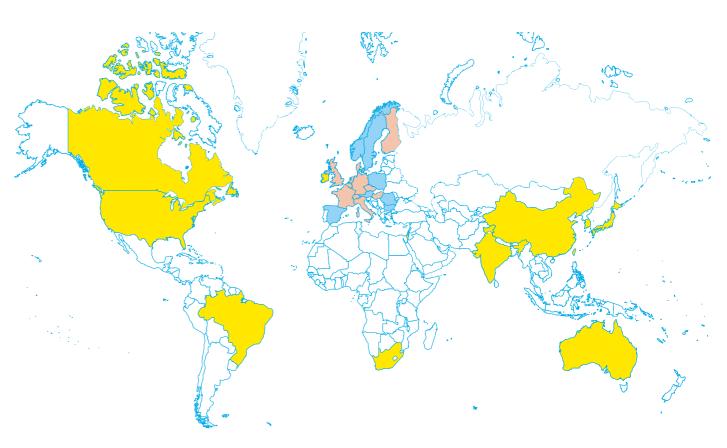
UBIAS

(University-Based Institutes for Advanced

UBIAS is a network of 44 university-based Institutes for Advanced Study worldwide. Initiated in 2010, the network was established to enable structured forms of exchange in this growing segment, including biennial conferences and joint programmes between partner institutes. Unlike traditional Institutes for Advanced Study, UBIAS institutes are associated with or embedded within a university, and actively contribute to the academic culture and the scientific achievements of their home university. UBIAS is committed to equality, inclusivity and diversity.

■ NetIAS members **UBIAS** members

members in both networks



Cooperation Partners

The Zukunftskolleg cooperates with different institutions from Germany and abroad. These collaborations advance the scientific dialogue on the academic level, but also strengthen knowledge communication with the public. Exchange in matters of organization helps to further develop the concept of the Zukunftskolleg continuously. The cooperation with major academic institutions, who offer to host the Zukunftskolleg fellows, serves networking and exchange of experience. Therefore, the foundation of collaborative projects and international research partnerships can be initiated.

National Cooperation Partners

Akademie Schloss Solitude

(Stuttgart)

With its international programmes, the Akademie Schloss Solitude supports young and particularly gifted artists. Apart from those, also scientists of such disciplines as Music or Arts are welcome to apply for scholarships. The Schloss Solitude is not only a place for artistic and scientific exchange, but also a possibility for young scientists and artists to retire from their daily life. This way Zukunftskolleg Fellows are given the opportunity to attend a retreat from one up to three months' time.

Baden-Würtemberg-Stiftung (Stuttgart)

The Eliteprogramm für Postdoktorandinnen und Postdoktoranden addresses outstanding young researchers. With this programme the Baden-Württemberg Stiftung supports annually around 20 postdoctoral candidates financially, who aim to pursue their research at a university within the federal state of Baden-Württemberg and who have made it their home base. A number of Zukunftskolleg fellows have already received the institution's support.

Hector Foundation

(Weinheim)

The foundation supports medical research, provides assistance to social programmes – especially in regard to disabled persons – and funds artistic and cultural projects. A further focus is the support of gifted young people, especially in the natural sciences and mathematics. In this context, the Hector Foundation II finances the Hector Pioneer Fellowship of the Zukunftskolleg.

Hegau-Bodensee-Seminar

(Konstanz)

The Hegau-Bodensee-Seminar offers interested high school pupils a possibility to take advantage of further education beyond school contents. Supported by lectures, workshops and excursions the pupils tackle chosen topics in collaborating working groups. "University Day" is a fixed part of the Hegau-Bodensee-Seminar, which provides the chance for pupils to do research directly with scientists and experience recent research done at universities at eye level. In the last years, Zukunftskolleg Fellows held lectures and seminars in the framework of the University Day. In 2017, the topic was "Foreseeability".

Lindau Nobel Laureate Meetings (Lindau)

The yearly held Lindau Nobel Laureate Meetings are a worldwide recognized forum for the exchange between generations and scientists. Young scientists are chosen from a worldwide network of academic partners in order to participate in panel discussions, seminars and other forms of communication connected to the event. This way the aspiring generation receives a unique opportunity to meet and network with Nobel laureates for Physics, Chemistry, Medicine and Economics. The Zukunftskolleg is a partner of this meeting and fellows are regularly nominated to join the event. In 2017, Roxana Halbleib (Research Fellow/ Dept. of Economics) was invited to join the Lindau Nobel Laureate Meeting on Economic Sciences.

Volkswagen Foundation

(Hannover

Through its funding initiative Postdoctoral Fellowships in the Humanities at Universities and Research Institutes in Germany and the USA, the Volkswagen foundation aims to enable postdoctoral researchers based at academic institutions in the U.S. to spend some time conducting studies at universities or research institutes in Germany. These studies can either be undertaken at a university or research institute of the candidate's choice or at a cooperating institute. The Zukunftskolleg is one of 14 host institutions for the fellowships.



Cooperation Partners

International Cooperation Partners

a. Alexandru Ioan Cuza University of Iași

(Romania)

UAIC is the oldest higher education institution in Romania, being ranked in top 3 in national rankings of universities. With over 752 teachers, 23.000 students (among them 850 PhD students), 319 researchers (part-time and full-time researchers including postdoctoral researchers), the university enjoys high prestige at national and international level. UAIC is a member of some of the most important university networks and associations: the Coimbra Group, EUA - European University Association, Utrecht Network, International Association of Universities, University Agency of Francophony and the Balkan University Network. UAIC also has two Interdisciplinary Research Departments: one in the field of science and in social science and humanities.

Centre for Liberal Arts and Social Sciences

(Singapore)

The CLASS is a major research centre of the College of Humanities, Arts and Social Sciences at the Nanyang Technological University (Singapore). Established in 2006, CLASS facilitates, coordinates, and encourages interdisciplinary research at Nanyang Technological University, and acts as a platform for interaction among local and international scholars from various disciplines. Some of the activities organised at the centre include presentations for working papers, seminars, CLASS Distinguished Lectures, multi-disciplinary workshops and conferences.

Collegium Helveticum (Switzerland)

The Collegium Helveticum (Zurich, Swit-

zerland) is a think tank and laboratory for transdisciplinary research. It aims to provide a meeting place and forum for dialogue between the humanities, social sciences, physical sciences, engineering, medical science and the arts. It is sponsored by the University of Zurich, ETH Zurich and the Zurich University of the Arts. Alongside the transdisciplinary research of its fellows and members, the collegium organises international events on fundamental issues in science and the arts in general, as well as on the current research topic (2016–2020) of 'digital societies' in the role as an Institute for Advanced Study.

Darwin College Cambridge

(United Kingdom)

Darwin College is a constituent college of the University of Cambridge (UK) and has been founded in 1964. It is a supportive, interdisciplinary community in which graduate students, researchers and fellows meet together, so as to enrich and enlarge their scholarship and personal experiences. The colleges are one of Cambridge's strengths, academic communities that cross the disciplines. Darwin College has 65 fellows who hold faculty or research positions in the university and associated institutes, and about 650 students who come from the UK and some 70 other countries. Darwin College fosters an informal and egalitarian atmosphere for this multi-disciplinary, international community. Students and fellows meet and talk at academic get-togethers and seminars, over meals and at social and sporting events and in running the annual Darwin College lecture series (a major public event with luminary speakers every week of the Lent Term). Unlike most other colleges their students and fellows are not segregated and students are members of many of the college's governing committees.

Israel Institute for Advanced Study

(Israel)

Israel Institute for Advanced Studies (IIAS) of Jerusalem is a national institution devoted to academic research. Located at The Hebrew University of Jerusalem, the IIAS is a self-governing body, both in its administrative function as well as its academic pursuit. The primary function of the institute is to encourage and support collaborative research. Along with collaborative research groups, the institute annually hosts six advanced schools as well as many conferences. The institute is similar in concept to several existing Institutes of Advanced Study, yet also unique in its sponsoring unrestricted academic research and hosting collaborative teams throughout the more than forty years since its establishment.

Martin Buber Society of Fellows in the Humanities (Israel)

The Martin Buber Society of Fellows in the Humanities and Social Sciences at the Hebrew University of Jerusalem (Israel) aims to offer young and outstanding scientists of Humanities and Social Sciences a creative and vivid research landscape. Its fellowship programme fosters the German-Israeli dialogue within the society and beyond, and with the vital academic and intellectual connections that the fellows have created in the encounters the programme facilitates. Just like the Zukunftskolleg the Martin Buber Society is interdisciplinary oriented and supports

excellent research. Therefore, collaboration and exchange between the two institutions bears high potential and proved to be fruitful. A "Memorandum of Understanding – To Establish a Programm of Scholary Exchange and Cooperation" has been signed in 2011 and renewed in 2015. Moreover, workshops for larger groups are being held in Jerusalem and Konstanz. Most recently, a symposium entitled Un/certainty has taken its first round in Konstanz in June 2018, its second part will be held from 27-30 November 2018 in Jerusalem.

Waseda Institute for Advanced Study

(Japan

The Waseda Institute for Advanced Study (WIAS) in Tokyo (Japan) was established in 2006 as a research institute to provide young researchers with opportunities to dedicate themselves to their research. WIAS offers an independent research environment for young researchers and fosters them to be next-generation researchers. Currently, about 40 researchers are working in the fields of natural sciences, humanities, social sciences and interdisciplinary areas at WIAS. They are engaged in leading research activities that fully demonstrate their flexible thinking and abilities. WIAS also accepts overseas distinguished researchers who stay at Waseda for a short-term to engage in cooperative research with Waseda faculty members or WIAS researchers.

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The Zukunftskolleg is an Institute for Advanced Study at the University of Konstanz promoting early independence for postdoctoral researchers. With its 2-year and 5-year Fellowships as well as a diverse network of support, scholars in the humanities, social and natural sciences come to Konstanz from across the world to perform first-class research.