



Zukunftskolleg Newsletter Issue 01/2024

Dear fellows and friends,

We hope that you have all had a wonderful winter semester in Konstanz and wish you a restful semester break. Also, we want to thank everyone for all the inspiring talks and enjoyable events we shared this term!

Our call for the new ZENiT Fellowship Programme at the Zukunftskolleg closed on 15 December 2023. We received 12 applications within this first call. The decisions on the applications and who will receive funding was made at the end of January, together with the 2-year Fellowship applications.

For now, we look forward to welcoming you back to an exciting and (hopefully) sunny summer semester soon.

Warmest regards,

The Zukunftskolleg team

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Current/latest calls for applications

6th call for applications for early career researchers from Africa, Asia and Latin America launched

The Zukunftskolleg has launched a new call for Zukunftskolleg Konnect (ZUKOnnect) Fellowships. The ZUKOnnect Fellowships support early career researchers from Africa, Asia and Latin America related to one of the thirteen departments of the University of Konstanz. Application deadline is 15 February 2024.

Up to 8 (post)doctoral stipends for an on-campus research stay at the Zukunftskolleg are available for up to 3 months (or for up to 4 months in justified cases). The on-site

ZUKOnnect Fellowships are complemented by a digital affiliation, thus extending it to a duration of 12 months. The start date for the digital affiliation is summer 2024. The preferred start date for the on-site ZUKOnnect Fellowships is between 15 September and 15 October 2024.

The foundation "Manfred Ulmer-Stiftung für Wissenschaft und Gesellschaft" at the University of Konstanz will fund one of the fellowships. The "Centre for the Advanced Study of Collective Behaviour" and the Cluster of Excellence "The Politics of Inequality" will fund up to two



fellowships for projects related to one of their interdisciplinary research fields.

This year, there are two options:

A) Open application

B) Nomination (former "Herz Fellowship").

To identify the best candidates from any discipline, all (junior) professors at the University of Konstanz are encouraged to suggest nominees (Option B). The Zukunftskolleg's Internal Liaison Board will make a pre-selection from these suggestions. The deadline for nominations is 15 February 2024. Please send your nominations to zukonnect@uni-konstanz.de. Nominated candidates must also submit their application documents online by 15 February 2024.

The ZUKOnnect Fellowships aim to strengthen cultural diversity at the Zukunftskolleg and in so doing promote and stimulate the intellectual and integrative discourse among our fellows. By broadening our academic horizons to countries in Africa, Asia and Latin America, we want to advance intercontinental dialogue in research.

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Recent call for five 2-year Postdoctoral Fellowships at the Zukunftskolleg

The Zukunftskolleg has just closed its 18th call for applications for five 2-year Postdoctoral Fellowships (the closing date for applications was 10 October 2023).

Postdoctoral Fellowships are intended for researchers in the early stages of their careers who plan to develop and implement an independent research project. The fellowships are open to researchers from all fields represented at the

University of Konstanz. Each fellow is a member of both a university department and the Zukunftskolleg. Additionally, fellows of the Zukunftskolleg can be affiliated to the Clusters of Excellence at the University of Konstanz: "Centre for the Advanced Study of Collective Behaviour" or "Politics of Inequality".

We received **211 applications in total**, of which – after a formal eligibility check – 67 were eligible: 26 from female, 40



from male and 1 from other researchers; 11 applications came from Germany, 56 from 29 different countries. In a first pre-selection, the Recruitment Committee chose 21 final candidates. In its meeting on 25-26 January 2024, the Committee decided to offer a 2-year Postdoctoral Fellowship to the following researchers:

- Henrique Almeida de Castro (cluster "Politics of Inequality")
- Ekaterina Suverina (History and Sociology)
- · Julia Ditter (Literature)
- · Angelo Javier Neira Albornoz (Chemistry)



12 applications for the new ZENiT Fellowship Programme

The Zukunftskolleg received 12 applications within the first call for applications for the new ZENIT Fellowship Programme (application deadline: 15 December 2023). ZENIT stands for Zukunftskolleg Exchange Network: interdisciplinary Talent.

The 12 applications reflect a wide variety in research fields and country distribution.



career stages, and affiliation of the project group participants. We received applications from eight different departments as well as the two clusters. Among them are seven international and six female applicants.

We thank all applicants who managed to hand in their application within such a short application period of only six weeks.

In its meeting on 25-26 January 2024, the Recruitment Committee also decided on the applications. The new ZENiT Fellows are:

· Yitzhak Ben Mocha (Biology)

- · Gisela Kopp (Biology)
- Jonas Kuckling (Computer and Information Science)
- Tobias Tober (cluster "Politics of Inequality")
- · Alexandra Windsberger (Law)
- Abena Yalley (Politics and Public Administration)

The purpose of the ZENiT programme:

In 2023, the Zukunftskolleg launched a new group fellowship format, ZENiT, which bridges short postdoctoral and tenure track positions. ZENiT offers postdoctoral researchers at the University of Konstanz the possibility to create a group of scientists and prominent people from the non-academic world and work on projects on the fringes of their research. It allows early career researchers to broaden their horizons, meet new people and create new networks. ZENiT follows the 5i strategy of the Zukunftskolleg and opens the Zukunftskolleg's doors to postdoctoral researchers at the university by offering them a fellowship for the duration of up to 3 years. The ZENiT Fellowship provides no salaries, but financial support for researchers of up to €100,000 for research ideas and networking and a research allowance of €3,000/year. It gives the new fellows the opportunity to be part of the vibrant Zukunftskolleg community and to profit from the community's internationality and interdisciplinary life. ZENiT is an important part of the new Excellence Strategy (ExStra) application of the University of Konstanz.



Welcoming of new members to the Zukunftskolleg

Research Visit Fellow Hendrik Rommeswinkel

Hendrik Rommeswinkel successfully applied to the Zukunftskolleg's Research Visit Programme and visited Konstanz from November 2023 to January 2024.

Hendrik is a decision theorist and behavioural economist at Waseda University for Advanced Study, one of the Zukunftskolleg's partner institutes.

His research project: "Decision Times in the Luce Model" addresses the relation between individual choice behaviour and



the time it takes to make decisions. Specifically, in his research paper "Procedural Mixture Sets", he has developed a theoretical prediction according to which decision times monotonically increase in the generalized entropy of the decision probabilities if the decision probabilities follow a specific pattern, the so-called Luce model. This work

was awarded the "Jaffray Lecture 2023" at the conference "Risk, Uncertainty & Decision", one of the leading conferences in decision theory.

While in Konstanz, he especially collaborated with Urs Fischbacher.

On the WIAS website he shared his experiences in Konstanz:

https://www.waseda.jp/inst/wias/news-en/2024/02/02/15012/



Senior Fellow Konrad Schmüdgen

In January, we welcomed **Senior Fellow Konrad Schmüdgen** from the Department of Mathematics at the University of Leipzig, Germany, to the Zukunftskolleg. He will stay in Konstanz until March and work on the project "Moments, Non-negative Polynominals and Partial Differential Operators".

His main research is in "Operator Theory", a central area in modern analysis, deeply related to mathematical physics. A major breakthrough was achieved in the late 1990s by Schmüdgen's solution to the "Moment Problem on Compact Semi-Algebraic Sets", in which the "Positivstellensatz" ("positive locus theorem") of real algebraic geometry played a surprisingly essential role.

We wish Konrad Schmüdgen a great time at the Zukunftskolleg!





Review of events

Jour fixe, Public Talks, Meetings and Workshops



07 November 2023, Tobias SutterResearch Fellow / Computer and Information Science

Jour fixe: "Machine learning for dynamical systems"

Abstract:

Given the recent progress in information technology, with real-time data being available at large scale, many complex tasks involving dynamical environments are addressed via tools from machine learning, control theory and optimization. While control theory in the past has mainly focused on model-based design, the advent of large-scale datasets raises the possibility to analyze dynamical systems on the basis of data rather than analytical models. From a machine learning perspective, one of the main challenges going forward is to tackle problems involving dynamical systems which are beyond static pattern recognition problems. In this talk, I will give an overview about different problems lying at this intersection of dynamical systems, learning and control that I have worked on in the past. One such problem is reinforcement learning, which basically aims to learn an optimal policy from data by cleverly interacting with an unknown dynamical system described as a Markov Decision Process.

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14 November 2023, Sidney Carls-Diamante Fellow / Philosophy

Jour fixe: "Creativity as uncertainty reduction: an active inference model"

Abstract:

The presentation introduced an active inference-based model that construes creativity as a set of strategies for reducing uncertainty, thereby accounting for how imagination is actualized into invention. The model focuses on creativity as novelty, originality and unusualness and elaborates the processes by which creative thought is translated into creative action. Creative thought is used as an umbrella term for creativity-related cognitions. Creative action refers to behaviours, such as invention, by which the contents of creative thought are actualized to produce creative output.

The model formulates creative thought as an epistemic strategy for exploring the world, where novel, original and unusual aspects of creative thought are interpreted as positing new configurations of objects, ideas or concepts. Because these configurations are not

yet extant in the world, there are as yet minimal sources of sensory signals required to test whether the configuration will have the physical, aesthetic or practical features attributed to it in creative thought. Uncertainty regarding the configuration is thus generated. To minimize uncertainty, action policies prescribing behaviours appropriate to realizing the configuration are formulated, generating creative action.

The presentation first discussed the model in its basic form, before exploring its applications to some common patterns of creative action. These include leaving output uncompleted, jumping from one project to another, variations on a theme, derivative works, and continuous, focused work on a particular project. These patterns are accounted for in terms of how they implement uncertainty-reduction processes.

21 November 2023, Mohsen Jenadeleh

Former Associated Fellow / Computer and Information Science

Jour fixe: "JND-based perceptual quality assessment of nearly lossless compressed visual media"

Abstract:

Perceptual quality assessment has been a long-standing problem that attracts attention from both academia and industry. The just-noticeable-difference (JND) methodology has been proposed to measure the human subjective quality of experience in recent years. In his talk, Mohsen provided a brief review of JND-based visual quality measurement and its applications. He also discussed the biases introduced by current methodologies for subjective JND assessment, introduced a methodology to collectively assess the JND and addressed the bias problem. During his talk, he explored ways to optimize the JND subjective test methodology in the context of video compression, aiming to estimate user satisfaction with a given video quality at a lower cost and with higher accuracy using both simulations and human studies. Experimental results were presented to demonstrate the performance of the proposed methods.

28 November 2023, Jacob Bloomfield

Postdoctoral Fellow / Literature

Public Jour fixe: Book Presentation of "Drag: A British History"

Despite its transgressive associations, drag has persisted as an intrinsic, and common, part of British popular culture – drag artists have consistently asserted themselves as some of the most renowned and significant entertainers of their day. As Jacob Bloomfield demonstrated, drag was also at the centre of public discussions around gender and sexuality in the nineteenth and twentieth centuries, from Victorian sex scandals to the "permissive society" of the 1960s. This compelling new history demythologizes drag, stressing its ordinariness while affirming its important place in British cultural heritage.

29 November 2023, University Day 2023

One ZUKOnnect Fellow and one Herz Fellow from the Zukunftskolleg ran workshops and interacted with pupils of the Hegau Bodensee Seminar (aged 16–18) to share their fascination for science around the world.

Workshop 1: "From Dracula to Batman: the truth about the real ecosystem heroes, the bats!"

Jennifer de Sousa Barros (Herz Fellow / Biology)

Workshop 2: "Cities and inequality"

Khanyile Mlotshwa (ZUKOnnect Fellow / Politics and Public Administration)



05 December 2023, Ariane Bertogg Postdoctoral Fellow / History & Sociology

Jour fixe: "Societal Norms and Unequal Ageing: The Role of Life Courses and Social Capital"

Abstract:

In the context of her proposed SNSF Starting Grant, Ariane plans to investigate the role of societal norms for inequalities in later life health. Despite a rich literature on socioeconomic and gender inequalities in health and healthy ageing differentials between welfare regimes, little is yet known about the role of social-cultural pathways that shape potentials and risks for (equal) healthy ageing within and across countries around the globe. Drawing on the life course framework, this project tests mechanisms related to life course factors and social capital both in mid-adulthood and later life and link them to both behavioural and distributed social norms. The empirical analyses rely on large-scale secondary surveys of older adults, using advanced quantitative methods for causal analysis. She selects micro-level datasets which are designed to be harmonized across countries in Europe, North and Latin America, and Southeast and East Asia, and complements them with contextual level indicators of social norms, consisting of aggregate survey data. She proposes a five-year research programme which will host two doctoral students and one postdoctoral researcher.

05 December 2023, New Executive Members Elected

At the Assembly of Members on 5 December 2023, the fellows elected Anamaria Bentea (Research Fellow / Dept. of Linguistics) to serve as a new member on the Executive Committee from January 2024 and James Wilson (Postdoctoral Fellow / Dept. of History and Sociology) as a new EC member from May 2024.





The term of office on the Executive Committee came to an end for Abena Yalley (Postdoctoral Fellow / Dept. of Literature & Politics and Public Administration) at the end of December and will come to an end in April for Ariane Bertogg (Postdoctoral Fellow / Dept. of History and Sociology). Abena and Ariane served two terms on the EC.

We thank Abena and Ariane for their commitment to the EC and wish Anamaria and James good luck in their new role!

12 December 2023, Collaborative Jour fixe of Zukunftskolleg & WIAS

Workshop: "Basic Science for Sustainable Development"

Speakers:

- 1. "Cancer, spatiotemporal analyses of extracellular vesicle transfer in tumour microenvironment" - Nao Nishida (Assistant Professor / Life Science, Waseda Institute for Advanced Study)
- 2. "Controlling M-S-H crystallization for building a green future" Cristina Ruiz Agudo (Research Fellow / Chemistry, Zukunftskolleg)
 3. "Autocratization: Causes and consequences" – Yuko Sato (Assistant Professor /
- Political Science, Waseda Institute for Advanced Study)
- 4. "Self-charging solar panels" Ashwinder Kaur (Herz Fellow / Physics, Zukunftskolleg)



14 December 2023, Network event "Let's talk about the SDGs"

On 14 December 2023, the Zukunftskolleg invited students from the qualification N programme (Quali N) to discuss different perspectives with fellows. Between frustration and hope - common around the world is the understanding about the interconnection of all 17 SDGs.

Thanks to our ZUKOnnect/Herz Fellows Ashwinder Kaur, Israel Ebhohimen and Natascha Roth-Eiching as well as Associated Fellow Maryna Lytvyn for sharing their thoughts as citizens of India, Nigeria, Chile and Ukraine.



19 December 2023, Ori Harel

Educational psychologist and mindfulness yoga trainer

Jour fixe: "Strengthening mental resilience: Strategies for dealing with academic stressors"

Abstract:

Academic living is often experienced as stressful due to some specific characteristics, such as work-life balance, relationship with supervisors, meeting deadlines, the lack of constructed schedules, and more (Tsai, & Muindi, 2016). Graduate students are more than six times as likely to experience depression and anxiety compared to the general population (Evans, et al., 2018; Loissel, 2020).

In this participatory workshop, our specific academic-related stressors were discussed, and how to manage them and cope better. The participants practised various exercises to improve their well-being, assertiveness and confidence.

09 January 2024, Open Discussion

Jour fixe: "What are our academic values?"

Abstract:

We all have, each of us, a research agenda, a topic, a question, a goal that drives our thinking and pushes us to do the research that inspires us. These questions are rooted within our own discipline. It is easy for us, when we are asked, to explain what we do and why.

We all also have academic values, overarching principles, ethical values that we follow in our research practice. We would think that these values should be common to all of us, across disciplines. And still: when pushed to name them, to put them in a nutshell, maybe even to write a statement "What are our academic values?" — we fail.

This is a problem, in particular given that living our (implicit) values may change or maybe even the values themselves change and come under increasing pressure in a changing world: research innovations, artificial intelligence, sustainability and climate change might all affect our values, and how we defend them.

16 January 2024, Hendrik Rommeswinkel

Research Visit Fellow / Economics, Waseda Institute for Advanced Study

Jour fixe: "Preference for Verifiability"

Abstract:

Decision-makers may face situations in which they cannot observe the outcomes that result from their actions. In such decisions, motivations other than the expected utility of good outcomes may play a role. The presented paper axiomatically characterizes a decision model in which the decision-maker cares about whether it can be verified ex post that a good outcome has been achieved. Preferences over acts uniquely characterize a set of events that the decision-maker expects to be able to verify if they occur. The decision-maker maximizes the expected ex-ante utility across verifiable events of the worst possible ex-post outcome that may have occurred on a verified event

For example, a firm choosing between different carbon emission reduction technologies may find some technologies leave more uncertainty ex post about the level of emission reduction than other technologies. The firm may care about proving to its stakeholders that a certain amount of carbon reduction has been achieved and may employ scientific studies to do so. It may choose less efficient technologies if the achieved carbon reduction is better verifiable using the available scientific studies.

23 January 2024, Elisa Deiss-Helbig

Research Fellow / Politics and Public Administration

Jour fixe: "Understanding political inequality via electoral promises and their fulfilment"

Abstract:

Political equality, a foundational tenet of democracy, is currently under scrutiny across diverse democracies. Across a wide range of democracies, a burgeoning literature has revealed that public policy fails to represent the interests of a range of different constituencies. This research casts serious doubt on the realization of the democratic ideal. Despite the fact that electoral promises are highly relevant to government policies, we lack empirical evidence about political inequality at the early stages of policy formulation and how it evolves over the subsequent stages of the policy-making process.

The presentation delved into Elisa's research on electoral promises and their fulfilment, contributing valuable insights into our comprehension of unequal representation. Key questions guide this exploration: Which social groups are the recipients of electoral promises, and how do these promises materialize into tangible actions? Furthermore, an exploration of individual-level variations in the deservingness perceptions of a wide range of social groups deepens our understanding of the formulation and fulfilment of electoral promises. Additionally, from the demand side, the discussion explored how citizens respond to targeted promises within electoral programmes and what conditions their reactions to the fulfilment and breach of these promises. By doing so, Elisa aims to shed light on parties' incentives in making and fulfilling promises for specific social groups, providing valuable insights into the broader landscape of democratic representation.

30 January 2024, María Cruz Berrocal Associated Fellow / History and Sociology

Jour fixe: "The archaeology of small islands in the Pacific: the past for the future"

Abstract:

In her talk, María Cruz Berrocal dealt with several case studies on Pacific islands where she has conducted field work in the last decade (Moturiki, Fiji; Alofi, Wallis and Futuna; Rota, Commonwealth of the Northern Mariana Islands), focusing on the following topics: the relation of the archaeological record with current forest masses; the level of anthropization of the islands; the contrast between land uses and settlement patterns in the past and the present; the potential that the archaeological record offers for an understanding of carrying capacity and agricultural practices; and the future of the coastal/inland dichotomy currently observed on islands that are suffering from rising ocean levels day by day.

06 February 2024, Jennifer Randerath

Associated Fellow / Psychology

Jour fixe: "To do or not to do – affordance judgements in older participants and stroke patients"

Abstract:

Whether an individual will engage in a specific action in daily life depends on the perceived capabilities and the environmental factors at play (referred to as affordance perception, which involves the perception of possibilities for action). For instance, when a car approaches, the decision to cross the road safely is influenced by factors such as the person's speed in comparison to the approaching car. We propose that the decision-making processes, known as affordance judgements, are shaped and activated by the perception of affordances and are significantly influenced by prior experiences and expected outcomes of actions.

Various tasks can lead to either overestimating or underestimating one's abilities. Mistaken decisions arising from overly cautious or overly liberal responses or from impaired perceptual sensitivity (such as after a stroke) can result in risky situations. In her talk, Jennifer introduced a research line that aims at a stepwise development of assessments and training approaches for judging action opportunities.



Forthcoming events

Workshop "Social constructions of target populations and their impact on political behaviour and public policy"

23 February 2024

Final workshop of the GROUPTA project funded by the German Research Foundation (DFG): "Social constructions of target populations and their impact on political behaviour and public policy", organized by Research Fellow Elisa Deiss-Helbig



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Conference "MoPAT-24 – Moments and Polynomials: Applications and Theory"

11-14 March 2024

Conference "MoPAT-24

– Moments and
Polynomials:
Applications and
Theory", organized by
Research Fellows Philipp
die Dio (main organizer)
and Tobias Sutter (coorganizer)

More information



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Meetings

15 May 2024 Executive Committee Meeting

16-17 May 2024 Scientific Advisory Board Meeting

10 July 2024 Executive Committee Meeting

17-19 September 2024
Zukunftskolleg Scientific
Retreat





Publications

Institutes for Advanced Studies: A fig leaf?

In an article in the online portal wissenschaftsmanagement.de, Giovanni Galizia emphasizes the importance of independent research.

The number of Institutes for Advanced Studies has increased significantly in Germany in recent years. "This is a good development," says Giovanni Galizia, "because freedom for blue-sky research (basic research) in a protected space is necessary. However, this trend is also an alarming symptom of the fact that such free spaces are becoming increasingly rare in our universities. We should take countermeasures!"

Read more (in German)





Careers, distinctions and grants

Manfred Ulmer Fellowship 2023 for Israel Ehizuelen Ebhohimen

The Manfred Ulmer Fellowship 2023 was awarded to ZUKOnnect Fellow Israel Ehizuelen Ebhohimen from the Department of Biology.

In his research project, the postdoctoral researcher from



At the award ceremony in Tuttlingen

Nigeria is investigating "Comparative analyses of the molecular toxicity of natural bioactive compounds".

The "Manfred Ulmer-Stiftung für Wissenschaft und Gesellschaft" at the University of Konstanz finances one of the four ZUKOnnect Fellowships with €6,000 per year. The ZUKOnnect Fellowship supports young researchers from Africa, Asia and Latin America.

The award ceremony of the Manfred Ulmer Fellowship took place at the **40th edition of the Regional Science Forum** on 16 November 2023 in Tuttlingen (Germany). It is organized by the University of Konstanz and the Manfred Ulmer-Stiftung für Wissenschaft und Gesellschaft.



6-year junior researcher grant from the Portuguese Foundation for Science and Technology for Sidney Carls-Diamante

The Zukunftskolleg congratulates **Sidney Carls-Diamante** from the Department of Philosophy on a 6-year junior researcher grant at the Fundação para a Ciência e a Tecnologia (FCT) for the project "Agency, Mentality, and Mind-Body Interaction in Suicidality in Bipolar Disorder".

Sidney Carls-Diamante was a Postdoctoral Fellow at the Zukunftskolleg from July 2020 until June 2023 in the Department of Philosophy and worked on the project "Philosophical Explorations of Bipolar

Disorder". We congratulate her and wish her all the best.

Lecturer position for Ariane Bertogg

We congratulate **Ariane Bertogg** (Postdoctoral Fellow / History and Sociology), who has accepted a lecturer position in the Department of History and Sociology at the University of Konstanz, starting on 1 June 2024.

She will substitute Sebastian Koos, a sociology professor with a focus on social movements, for 6 months. Ariane has been a Postdoctoral Fellow at the Zukunftskolleg since April 2020, working on the project "Time, Space, and Ties. Multi-Dimensional Contextual Influence on Older Europeans? Participation in Employment and Family Caregiving".





Substitute professorship for Cristina Ruiz Agudo

We congratulate **Cristina Ruiz Agudo**, who will replace Helmut Cölfen (†) in the Department of Chemistry at the University of Konstanz for one year, starting on 1 April 2024.

Cristina has been a Research Fellow at the Zukunftskolleg since June 2020, working on the project "Controlling M-S-H Crystallization for Building a Green Future".





