

THE KLIFE NEWSLETTER

Dear friends of the KLI,

Welcome to the Spring-Summer 2024 edition of the KLife Newsletter. We hope this newsletter finds you in the best of health and spirits.

This year, we extend our heartiest gratitude and best wishes to Prof. Gerd B. Müller, who has served as President of KLI since 1997, and recently retired from this role. Over his 26 years of Presidentship, Gerd has contributed significantly towards making the KLI the world-renowned seat of Theoretical Biology that it is today. Taking over as the new President of KLI is Prof. Philipp Mitteroecker. Join us in congratulating Philipp!

As always, there has been a flurry of activities at the KLI. We bring you news of successful collaborative efforts, new Fellows joining us, upcoming events to look forward to, and new publications. We hope you enjoy reading about these and more in this edition. Please get in touch with us for more information!

With warm regards to our local and international friends. We hope to connect with many of you here at the KLI - whether online or in person.

The KLI Team

NEW FELLOWS

We welcome our new fellows, <u>Anne Le Maître</u> and Andrea Gambarotto. Anne's work is at the crossroads of evolutionary biology, palaeontology and biological anthropology, focussing on the evolvability of the mammalian ear. Andrea's research interests lie mainly in complex systems theory, with a particular focus on the relation between teleology, agency and cognition in biological systems.

We look forward to welcoming Olesya Bondarenko, Franziska Reinhard, Elis Jones and Somya Mani, who will be joining us in the coming months.



UPCOMING EVENTS

KLI Colloquium Join us for the 2024 Spring-Summer **Colloquium Series**

Save the dates! Our Spring-Summer colloquium series will feature our very own four post-docs of the 2022-2024 cohort - Laura Menatti, Hari Sridhar, Marina Knickel and Corey Bunce - along with talks by Brian McLoone (Department of Philosophy, Auburn University, USA), Jana Semrau (FAU Erlangen-Nürnberg, Germany), Hans-Jörg Rheinberger (Max Planck Institute for the History of Science, Germany), Tudor Popescu (University of Padova, Italy), Juno Salazar Parreñas (Cornell University, USA), and levgeniia Ivanova (University of Stirling, UK).

All events are hybrid (in person at the institute as well as via Zoom), and everybody is welcome to join. Please register in advance at https://kli.ac.at/content/en/events/kli_colloguia We will announce the link and abstract through our mailing list a week before the colloquium.

EASPLS Summer School Apply for the Summer School: **Explanation and Evidence in Biology and Medicine**

The 7th edition of the biennial European Advanced School in the Philosophy of the Life Sciences (EASPLS) will take place at the KLI from the 9th to 12th of September.

The European Advanced School for the Philosophy of the Life Sciences is a biennial event that aims at fostering research, facilitating collaborations, and providing professional training to PhD students and early post-doctoral researchers working in the history, philosophy and social studies of the biological, biomedical, and environmental sciences. The 7th edition of EASPLS, organized by Leonardo Bich, Lucie Laplane, and Matteo Mossio, will be on the topic "Explanation and Evidence in Biology and Medicine". To apply, please visit: <u>https://www.kli.ac.at/content/en/the_kli/open_</u> calls/view/14 Deadline for application is March 30th!





FRUITFUL COLLABORATIONS AT THE KLI

Joint effort for climate adaptation KLI interdisciplinary team contributes to climate adaptation policies for the European Union

In the spring of 2023, six KLI fellows (in alphabetical order) Anna-Katharina Brenner, Corey Bunce, Joyshree Chanam, Marina Knickel, Laura Menatti, and Hari Sridhar pooled their strengths in Philosophy of Science, Biology, Sustainability Science, and Social Ecology to work on an interdisciplinary project for climate change adaptation. Laura Menatti and Corey Bunce led the project, while Guido Caniglia, Scientific Director of the KLI, facilitated the smooth and successful execution of this interdisciplinary effort. The team was awarded a grant from the SSH Centre (Social Science & Humanities for Climate, Energy and Transport Research Excellence) last summer to contribute a book chapter on adaptation to climate change to the SSH Centre's multi-volume project on policy recommendations for the European Union. This January, they submitted their forthcoming chapter titled, "Adapting to Heatwaves: Reframing, understanding, and translating Strategies from India to the European Union".



Read more about this project here.

Evolutionary Theory for Social-Ecological Change Completion and Contribution of KLI Working Group

The KLI working group "Evolutionary Theory for Social-Ecological Change" achieved a successful collaboration resulting in <u>a new</u> publication that integrates social-ecological systems research and evolutionary theory, with the aim of building a more integrated and effective science for sustainability. Co-led by Maja Schlüter and Tim Waring, the 11-member team comprised researchers specializing in evolutionary theory and social-ecological systems theory, as well as scholars bridging the two domains in their work. The group had their meetings at the KLI in March 2022, October 2022 and April 2023, and, amidst the brainstorming sessions, also interacted with KLI Fellows through various formal and informal events.

Publication: Currie, T.E., Borgerhoff Mulder, M., Fogarty, L., Schlüter, M., Folke, C., Haider, L.J., Caniglia, G., Tavoni, A., Jansen, R.E., Jørgensen, P.S. and Waring, T.M., 2024. Integrating evolutionary theory and social-ecological systems research to address the sustainability challenges of the Anthropocene. Philosophical Transactions of the Royal Society B, 379(1893), 20220262.

The paper is part of a theme issue "Evolution and sustainability: gathering the strands for an Anthropocene synthesis" compiled and edited by Peter Søgaard Jørgensen, Timothy M. Waring and Vanessa P. Weinberger.

CONTINUING COLLABORATIONS AT THE KLI

Collaborative Event Vienna Science Studies Lab

The Vienna Science Studies Lab is an inter-institution initiative hosted by the Konrad Lorenz Institute, the UPSalon (University of Vienna), and the Epistemology of the In/human Project at Central European University (CEU).

The 4th Meeting of the Vienna Science Studies Laboratory was held on 12th February at Das Café in Vienna, and was attended by 13 participants from multiple disciplines and institutes in and around Vienna. The paper that was selected for this reading group's discussion was Kelly et al. 2014. Co-organiser Laura Menatti (KLI) opened the meeting with a welcome note, Hari Sridhar (KLI) summarised the paper and Maria Kronfeldner (CEU) provided additional historical aspects on the topic which was followed by a lively discussion. <u>Please find full report here.</u>

The Altenberg workshops in theoretical biology

The 40th Altenberg Workshop in **Theoretical Biology:**





Directionality in Genomics and Macroevolution

The Altenberg Workshops in Theoretical Biology address key questions of biological theories. Each workshop is organized by leading experts of a certain field who invite a group of international specialists to the KLI. The Altenberg Workshops aim to make conceptual progress and to generate initiatives of a distinctly interdisciplinary nature.

The 40th Altenberg Workshop was held in KLI from 28-29th Sep 2023. The event was organized by Laura Nuño de la Rosa, Craig Lowe, Adi Livnat & Beckett Sterner. This workshop brought together 16 researchers working on the development of new conceptual and methodological approaches to the detection and explanation of evolutionary trends.

Please find full details of the workshop here.

RESEARCH HIGHLIGHTS

Publication

Inter- and transdisciplinary reasoning for effective intervention on climate change

This article by Luana Poliseli and Guido Caniglia chronicles how inter- and transdisciplinary reasoning unfolded in a collaborative project involving experts from the natural sciences, humanities, and the arts. It appears that embracing of differences rather than seeking consensus among diverse perspectives allows interand transdisciplinary reasoning to help navigate unpredictable situations effectively by capitalising on and leveraging differences. Read more...

Publication

What fuels Conspiracy Theories?

A new multi-author paper, including Guido Caniglia, surveyed 3,067 German-speaking adults from Germany, Austria, and Switzerland, and found that belief in pandemic-related conspiracies was negatively associated with complexity thinking, optimism, and higher education levels. Read more...

Publication

Care & Cure. An introduction to philosophy of medicine, Chicago: The University of Chicago Press, 2018

In this book review, Isabella Sarto-Jackson emphasizes the ongoing relevance of the book, especially in light of the heightened public interest in health and medicine following the recent global pandemic. Opening with the line, "It is the best of times and it is the worst of times to grapple with philosophy of medicine", Isabella highlights the widening chasm between scientific progress in biomedical research and science skepticism and denialism: a tale of two contrasting narratives. Read more...

Publication

Evolution at the Origins of Life?

This Review paper by Schoenmakers et al. explores whether living systems became evolutionary after crossing some important threshold sometime after life originated, or can evolutionary theory be fruitfully extended to the origins of life. Read more...

Publication

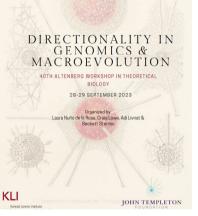
What drives densification and sprawl in cities?

Led by fresh KLI alumna Anna-Katharina Brenner, this paper explores the long-lasting impact of settlement arrangements in cities on sustainability, and emphasizes the importance of understanding the drivers of change in settlement patterns. Read more...

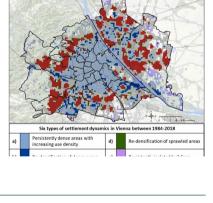
Publication

Trust in times of crises

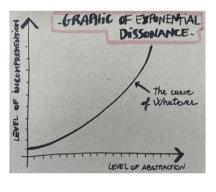
A new study co-authored by Guido Caniglia highlights optimism and complexity thinking as key factors to foster interpersonal trust during times of crises. Read more...

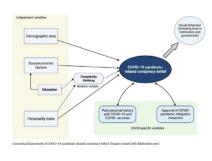














Social phenomena as a challenge to the scaling-up problem

This paper by Enrico Petracca questions the problem's main assumption: that cognitive phenomena can be categorized based on their inherent complexity or representation-hunger. Read more...

Publication

A new concept for social-ecological niche construction and its sustainability

A new article by Christian Dorninger, Lumila Paula Menéndez, and Guido Caniglia combines niche construction theory with social-ecological systems science to better understand the relationships between sociocultural and environmental coevolutionary processes that have led to the current planetary crisis. Read more...

KLIIN THE WORLD AND NEWS

Conferences and workshops

Members of the KLI family connected with academics around the world though conferences and workshops in Madrid, Paris, Stuttgart, Granada, Belgrade, Pisa, Bergen, Wageningen and Stellenbosch, in-person as well as online. Here is a glimpse.

Interviews

Gerd B. Müller, in an interview by Kalevi Kull (University of Tartu) talks of the long journey of KLI, its role in the growth of the field of theoretical biology, as well as the development of his own interests and research work. The interview was published in the journal Biosemiotics and celebrates Gerd's 70th birthday and his visionary contributions to theoretical biology. We wish Gerd all the best for the coming years! Read the interview here.

Guido Caniglia was interviewed by Hernán Bobadilla (Polytechnic University of Milan) about doing philosophy in and for sustainability science. Guido speaks about the epistemic and ethical challenges within interdisciplinary and transdisciplinary research, and ways to navigate tensions between integration and pluralism in practice. This interview was published in the newsletter of the Society for Philosophy of Science in Practice (SPSP#20)

Read the interview here.

BIOLOGICAL THEORY

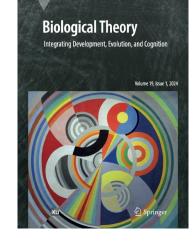
Biological Theory Biological Theory's latest issue: 19(1) is out Editors Stuart A. Newman and Deborah KLosky summarize the issue

with links to free epdfs.

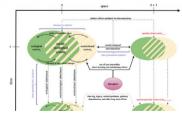
Issue 19(1) features a thematic section about "Concepts of Agency" as well as an article by evo-devo pioneer George McGhee that revisits a classic Edward D. Cope paper, along with our tribute to McGhee, and articles on microbiome function and on neuroepigenetic mechanisms.

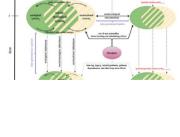
The thematic section on "Concepts of Agency" has an introduction by guest editor Lenny Moss. In the section, Samir Okasha discusses the motivations for the concept in biology, and a 4-fold typology of minimal, intelligent, rational, and intentional agents. Louis <u>Virenque</u> and <u>Matteo Mossio</u> examine agency in the framework of autonomy theory, while Andrew Pickering explores agency's uses in science and technology studies, ranging from a primordial concept relating to an "ontology of liveliness," to a higher-level concept encompassing cybernetic machines. Lastly in the section, Richard Watson looks at agency in relation to problem-solving competencies in biological systems in relation to part-whole relationships.

Read more here.









Past issues of The KLife Newsletter can be downloaded as pdfs here.

Get in touch!

The KLI is an independent center of advanced studies in the life and sustainability sciences. The mission of the institute is to **enable scientific reasoning** that can contribute to understanding and sustaining life on Earth in its biological, cognitive, social, and cultural diversity.

The KLI supports research focusing on **evolutionary theory**, especially in its relation to development, cognition, and sustainability science, as well as on the history, philosophy, and social studies of science.

You can find further information about KLI on our <u>Homepage</u>, <u>Twitter</u>, and <u>YouTube</u>.

The KLife Newsletter was created by Communications Manager Joyshree Chanam. Please send comments and queries to comms@kli.ac.at

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