

Working Group on Information Arbeitsgruppe Information (AGI)

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Overview of Invited Talks and Sessions

(Lecture room U SR 124)

Invited Talks

AGI 1.1	Wed	14:00–14:45	U SR 124	Beyond Open Access: SciPost — •JEAN-SÉBASTIEN CAUX
AGI 1.2	Wed	14:45–15:30	U SR 124	Multi-Stage Open Peer Review: Integrating the strengths of traditional peer review with the virtues of transparency and self-regulation — •ULRICH PÖSCHL

Sessions

AGI 1.1–1.3	Wed	14:00–15:45	U SR 124	New concepts in scientific publishing (joint session AGI/AKjDPG)
AGI 2	Wed	16:15–17:15	U SR 124	Annual General Meeting of the Working Group on Information
AGI 3.1–3.2	Thu	10:30–12:30	U SR 124	Hacky Hour - part 1 (joint session AGI/AKjDPG)
AGI 4.1–4.2	Thu	14:00–16:00	U SR 124	Hacky Hour - part 2 (joint session AGI/AKjDPG)

Annual General Meeting of the Working Group on Information

Mittwoch 16:15–17:15 U SR 124

- Begrüßung
 Genehmigung des Protokolls der letzten Mitgliederversammlung
 Wahl der Protokollführerin oder des Protokollführers
- Bericht des Sprechers und der stellvertretenden Sprecherin
- Aktuelle Projekte und Schwerpunkte
- Verschiedenes

AGI 1: New concepts in scientific publishing (joint session AGI/AKjDPG)

Time: Wednesday 14:00–15:45

Location: U SR 124

Invited Talk AGI 1.1 (7) Wed 14:00 U SR 124
Beyond Open Access: SciPost — ●JEAN-SÉBASTIEN CAUX — Institute of Physics, University of Amsterdam, Science Park 904, Postbus 94485, 1090 GL Amsterdam, The Netherlands

SciPost [1] is a by-and-for scientists initiative aiming to provide a Genuine Open Access [2] replacement infrastructure for the scientific publishing industry. Its journals are characterized by being open access for both readers (no subscription or reading fees) as well as authors (no author fees/APCs), giving generous licenses (CC-BY) with copyright to the authors. All editorial work is performed by active professional scientists, without competing financial or corporate interest. As an organization, SciPost is purely not-for-profit and community-owned, and follows a cost-slashing consortial business model.

This talk will outline the initiatives main aspects (with emphasis on its open peer-witnessed refereeing protocol), current status, and upcoming expansion plans, in view of recent developments in policy and business.

[1] <https://scipost.org/>

[2] <https://jscaux.org/blog/post/2018/05/05/genuine-open-access/>

Invited Talk AGI 1.2 (1) Wed 14:45 U SR 124
Multi-Stage Open Peer Review: Integrating the strengths of traditional peer review with the virtues of transparency and self-regulation — ●ULRICH PÖSCHL — Max Planck Institute for Chemistry, Mainz, Germany

The traditional forms of scientific publishing and peer review do not live up to the demands of efficient communication and quality assurance in today*s highly diverse and rapidly evolving world of scholarly research and teaching. They can be advanced by interactive and trans-

parent forms of review, publication, and discussion open to the scientific community and to the public. The concepts and achievements of interactive open access publishing and multi-stage open peer review will be presented and discussed, building on more than 15 years of experience with the interactive open access journals of the European Geosciences Union and related developments (ETAI, JIME, SciPost Physics, F1000 Research etc.). Further initiatives and perspectives of open access will also be address (OA2020 etc.).

U. Pöschl, *Frontiers of Computational Neuroscience*, 6, 33, doi:10.3389/fncom.2012.00033, 2012

https://www.atmospheric-chemistry-and-physics.net/pr_acp_Poschl_FrontiersNeuroscience2012_MultiStageOpenPeerReview.pdf

A Short History of Interactive Open Access Publishing, Copernicus Publications, 2011

https://www.atmospheric-chemistry-and-physics.net/pr_short_history_interactive_open_access_publishing_2001_2011.pdf

https://www.atmospheric-chemistry-and-physics.net/about/news_and_press.html

<https://www.mpic.de/forschung/publikationen/openaccess.html>

<https://oa2020.org/be-informed/>

AGI 1.3 (5) Wed 15:30 U SR 124

Discussion — ●UWE KAHLERT¹, ENRICO STEIN², JEAN-SÉBASTIEN CAUX³, and ULRICH PÖSCHL⁴ — ¹RWTH Aachen University — ²TU Kaiserslautern — ³Institute of Physics, University of Amsterdam — ⁴Max Planck Institute for Chemistry, Mainz

How can new concepts improve the dissemination, transparency and quality control of scientific results and publications? We will discuss these aspects with the speakers of this session.

AGI 2: Annual General Meeting of the Working Group on Information

Time: Wednesday 16:15–17:15

Location: U SR 124

Duration 60 min.

AGI 3: Hacky Hour - part 1 (joint session AGI/AKjDPG)

Time: Thursday 10:30–12:30

Location: U SR 124

AGI 3.1 (8) Thu 10:30 U SR 124

A community approach to atomic structures and processes — ●STEPHAN FRITZSCHE — Helmholtz-Institut Jena, 07743 Jena, Germany — Theoretisch-Physikalisches Institut, Universität Jena, 07743 Jena, Germany

In this contribution, a new (Julia) package is presented for modeling atomic structures, properties and processes. To this end, a high-level toolbox has been designed and implemented for dealing efficiently with simple but also complex systems. Here, I shall introduce these tools and explain by simple examples how they help provide accurate theoretical predictions and research in atomic spectroscopy, astro and plasma physics, or even quantum optics.

AGI 3.2 (9) Thu 11:30 U SR 124

Scientific writing made faster with automated download of LaTeX sources from arXiv — ●WOJCIECH RZADKOWSKI — Institute of Science and Technology Austria (IST Austria), Am Campus 1, 3400 Klosterneuburg, Austria

Very often, when writing, especially reviews, proposals and the like, one needs to insert known equations into the LaTeX text, either as they are or with slight modifications. This task could become tedious when the equations are long.

On the other hand, ArXiv provides access to the LaTeX source files, enabling direct copying of equations when they are part of a preprint, which is very often the case. However, this process can be a bit tedious, given that one needs to go to the Arxiv website, manually click a few times to choose the source download and finally uncompress the downloaded file. This can practically make rewriting an equation faster than copying from existing literature.

In my talk, I shall introduce a very simple command-line script written in Python that automates download and uncompressing of LaTeX sources, hence offering a speedup for a user needing to rewrite a large equation or use the source in another way. The script works on Unix-like systems and is available at github.com/wrzadkow/arxivdwnld.

As a bonus, one can use to script to easily extract the comments, which sometimes contain some information overlooked by the authors, look for example here: <https://twitter.com/QuantPhComments>

AGI 4: Hacky Hour - part 2 (joint session AGI/AKjDPG)

Time: Thursday 14:00–16:00

Location: U SR 124

AGI 4.1 (10) Thu 14:00 U SR 124

Versioning and collaboration: git in research and beyond —
•JOHANNES HAMPP — Center for international Development and Environmental Research, Justus Liebig University Giessen

An essential part of research is documenting results and making changes comprehensible. But wouldn't it also be great if we could easily keep multiple versions of files, track and review changes and have an efficient way to collaborate with others on our digital files?

In this part of the Hacky Hour, the powerful tool called 'git' will be showcased which can support us with exactly these tasks. Millions of developers world-wide have been using it for years. As we will see, it is not limited to work with source code of programmes as it can handle any type of plain file you can think of.

But as they say: Great power also brings great complexity. This is also true for git. Therefore the focus will be on showcasing how we can use git in our daily work - as a single researcher, in collaboration with colleagues or working in (open) research groups.

AGI 4.2 (11) Thu 15:00 U SR 124

Finite Elements in Python - The FENICS Package — •ENRICO STEIN — Physics Department and Research Center OPTIMAS, Technische Universität Kaiserslautern, Erwin-Schrödinger-Straße 46, 67663 Kaiserslautern, Germany

In this contribution the FENICS package for solving PDEs by the method of finite elements is presented. With this method one can solve a PDE numerically without a discretisation of the differential operators themselves. Instead one introduces on every subdomain an ansatz function yielding in the end a linear system of equations for the coefficients of the ansatz.

In this contribution the finite element method is introduced on formal grounds. With this knowledge at hand a simple example solving the Poisson equation with the FENICS package is presented. Afterwards everyone in the audience has the opportunity to participate actively and program his/her own example code. A working installation of the FENICS package for the last part is recommended.