



2nd MAGNUS SYMPOSIUM

On the Nature of Information

with a Satellite Workshop on *FAIR Digital Objects*

February 23-25, 2022
DPG Magnus Haus
Am Kupfergraben 7, 10117 Berlin

Feb. 23, Wednesday

FAIR Digital Objects (FDOs) Satellite Workshop (Chair Peter Wittenburg)

FDOs provide infrastructure for science, industry, public administration, and society in general.

08:30 2G+ check in & coffee

09:00 **How to make FAIR Digital Objects a Universal Global Data Standard** (on site)
Hans-Günther Döbereiner (U Bremen, nfdi4Phys, FDO-Forum)

09:15 **Easy as Pie: How Data Management can be FAIR for Everyone** (online)
Frank Tristram (KIT, nfdi4Phys)

09:30 **How to apply FDOs in Industry** (on site)
Stefan Weisgerber (DIN, Digital Platforms)

09:45 **How to get eAnything** (online)
Maximilian Funke-Kaiser (MdB)

10:00 **How the new EU Standardisation Strategy can Impact Research Domains and FDO Progress** (online)
Edit Herczog (Vision & Values SRL, Brussels)

10:15 **How to do Metrology for Supporting FAIR and FDO Principles** (online)
Sascha Eichstädt (PTB, Digital Transformation)

10:30 **How to tell what's an FDO?** (online)
Alireza Zarei (GWDG)

10:45 **How FDO Repositories and Registries Enhance Medical Portals** (online)
Oya Beyan (U Cologne, 4DS, Forum)

11:00 **Digital Research Products** (online)
Harry Enke (PUNCH4NFDI, Leibniz-Institut für Astrophysik Potsdam)

11:15 **Discussion in Breakout Room** (online) and **Wrap Up**
Peter Wittenburg (Forum Chair)

11:15 2G+ check in

11:15 Coffee

11:45 **Greetings** (online) (Chair HG Döbereiner)
Lutz Schröter, President of the German Physical Society

12:00 **On the Nature of Information** (on site)
Hans-Günther Döbereiner (U Bremen & FDO Forum)

12:15 **FAIR Digital Objects** (on site)
Peter Wittenburg (FDO Forum)

12:30 **Linguistics and Neighbouring Disciplines: Semantics from Different Points of View** (online)
Erhard Hinrichs (Leibniz Institut für Deutsche Sprache, TEXT+)

13:30 Lunch

- 14:00 ***Reading the Mind of a Cnidarian*** (online)
Rafael Yuste (Columbia U)
- 15:00 ***Dynamic Neuronal Mechanisms of Selective Attention*** (online)
Andreas Kreiter
- 16:00 Coffee
- 16:30 ***Theory of Information*** (online)
Nihat Ay (TU Hamburg & Santa Fe Institute)
- 17:30 ***The Turing Option in AI*** (online)
Frank Kirchner (DFKI, Bremen)
- 19:00 Dinner in small groups

Feb. 24, Thursday

Chairs

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| 09:00 | <i>Synergy and Emergence in Complex Systems</i> (on site)
Pedro A.M. Mediano (U Cambridge) | Ay |
| 10:00 | Coffee | |
| 11:00 | <i>Plant Cognition and Behaviour</i> (online)
Frantisek Baluska (U Bonn) | Ay |
| 11:45 | <i>Analog and Digital Information in Biology and Medicine</i> (on site)
Marc Hütt (Jacobs U) | Ay |
| 12:30 | Lunch | |
| 13:30 | <i>Bioelectric Networks Outside the Brain: The Cognitive Medium of Collective Morphogenetic Agents</i> (online)
Michael Levin (Tufts U) | Wiggins |
| 14:30 | <i>Integrated Biology of Basal Cognition</i> (online)
Christina Oettmeier (U Bremen) | Wiggins |
| 15:10 | <i>Biological Psychology of Decision Making</i> (on site)
Thorsten Fehr (U Bremen) | Wiggins |
| 15:40 | Coffee | |
| 16:10 | <i>From Data to Models and Back: Developing Neural Processing Theories for the Visual System</i> (online)
Udo Ernst (U Bremen) | Oettmeier |
| 16:50 | Coffee & snack | |
| 17:40 | <i>Clinical Validation in Cancer Diagnosis Through a Public Domain Database</i>
Josef Käs (U Leipzig) (on site) | Mediano |
| 18:00 | <i>Dataformats and Standardisation in cell motility</i> (on site)
Joachim Rädler (LMU Munich) | Mediano |
| 18:20 | <i>Topological Oscillation Dynamics in Small Degree Networks</i> (online)
Adrian Fessel (U Bremen & OHB) | Mediano |

- 18:40 **Agency, Downward Causation, and Information** (online) Mediano
George Ellis (University of Cape Town)
- 19:30 Dinner in small groups

Feb. 25, Friday Chair

- 08:00 **Ethics Past Present and Future** (on site) Jansen
Chris Wiggins (New York Times, U Columbia)
- 09:00 **Information and Noise** (on site) Jansen
Giovanna Morigi (U Saarbrücken)
- 10:00 Coffee
- 10:30 **4E Cognition: Yesterday, Today, and Tomorrow** (online) Hinrichs
Matt Sims (U Bochum, Humboldt Fellow)
- 11:15 **The Emperor's New Markov Blankets** (on site) Hinrichs
Krzysztof Dołęga (U Bochum)
- 12:00 **A Universal Response in Iterated Symmetric Games** Hinrichs
Jan Nagler (Frankfurt School of Finance and Management)
- 12:30 **In Search of Law's Reality** (online) Hinrichs
Lorenz Kähler (U Bremen)
- 13:00 Lunch
- 13:45 **Digital Objects in the Semiotic Triangle** (online) Morigi
Robert Porzel (U Bremen)
- 14:45 **Categorical Foundations of Information Modeling** (online) Morigi
Malte Lochau (U Siegen & FDO Forum)
- 15:45 Coffee
- 16:20 **The Social Dilemma of Big Data** (online) Sims
Lars Hornuf (U Bremen)
- 16:40 **Transdisciplinarity** (online) Sims
Claudia Biniossek (TIB, METHODS)
- 17:00 **Infrastructure of Natural Language Semantics Processing** (online) Sims
Philipp Wieder (GWDG & FDO Forum)
- 17:20 **What's in There?** (online) Sims
Frank Tristram (KIT)
- 17:40 **Closing Remarks** (on site)
HG Döbereiner (U Bremen & FDO Forum)