

General Information

Venue

The Auditorium of the Forschungszentrum Jülich.

Oral Presentations

The Auditorium is equipped with a video projector and a laptop for presentations.

Poster Session

We invite contributions in the form of poster presentations. Please send a short abstract (less than 3000 characters, no figures) to coordination-office@fz-juelich.de by 5 February 2020 at the latest. The posters will be mounted on movable walls provided by the organisers. The maximum size of a single poster should not exceed 90 cm width and 145 cm height (portrait format).

Registration

Please register before 31 January 2020 under the following link

www.john-von-neumann-institut.de/nic/nic-symposium

Accommodation

Participants are responsible for booking their own hotel accommodation.

Please visit www.john-von-neumann-institut.de/nic/nic-symposium for information about accommodation. The rooms in the hotels in Jülich will be held for the NIC Symposium until 31 January 2020.

Shuttle service will be provided from the hotels in Jülich.

We thank Amanda Wilber/LOFAR Surveys Team for the image used in the cover design.

How to find us



How to get to Jülich

Jülich can be reached

By train: go to Düren main station (Hauptbahnhof), then take the local train (Rurtalbahn) to Jülich.

By plane: Düsseldorf or Cologne airport. Individual transportation to Jülich upon request.

By car: via Autobahn A4, A44 and A61 (see map).

We are looking forward to seeing you in Jülich.

Further Information

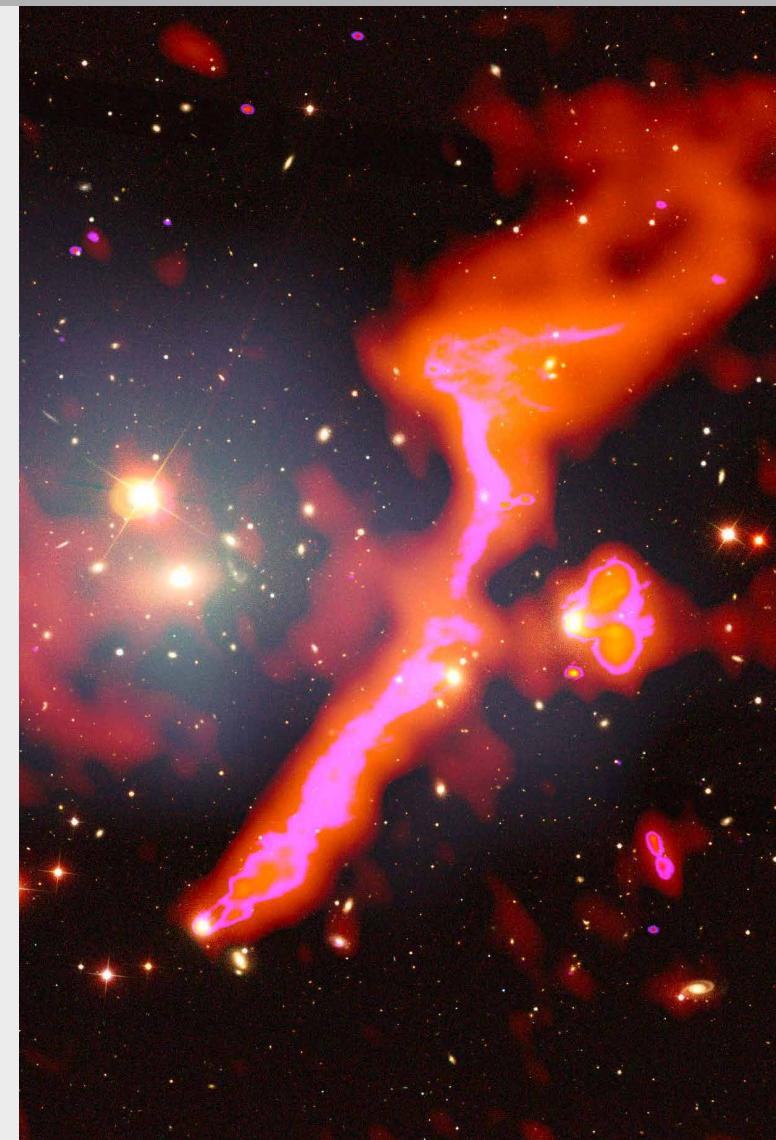
Additional information is available on the web at

www.john-von-neumann-institut.de/nic/nic-symposium

or contact the Symposium Secretary:

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NIC Symposium 2020

27 - 28 February 2020 | Jülich | Germany



The 10th NIC Symposium gives an overview of the activities of the John von Neumann Institute for Computing (NIC) and of the results obtained in the last two years by research groups supported by the NIC.

NIC — a joint foundation of Forschungszentrum Jülich (FZJ), Deutsches Elektronen-Synchrotron (DESY) and Gesellschaft für Schwerionenforschung (GSI) — supports with its members' supercomputer facilities about 130 research groups at universities and national labs working on computer simulations in various fields of science.

Invited lectures cover selected topics in the following fields:

- Astrophysics
- Biology and Biophysics
- Elementary Particle Physics
- Theoretical Condensed Matter
- Materials Science
- Soft Matter Science
- Earth and Environment
- Fluid Mechanics and Engineering
- Plasma Physics
- Computer Science and Numerical Mathematics

The talks are intended to inform a broad audience of scientists and the interested public about the research activities at NIC. The accompanying symposium proceedings will cover a range of topics even wider than provided by the talks.

Organising Committee

Marcus Müller

Kurt Binder

Alexander Trautmann

Martina Kamps

Programme

Thursday, 27th February 2020

- 8:30 Transfer from Jülich
- 9:00 Registration
- 9:30 **Welcome Address** by Th. Lippert, Forschungszentrum Jülich
- 9:45 Th. Lippert, Forschungszentrum Jülich
Developing Exascale Computing at JSC
- 10:30 Coffee
- 11:00 U.-G. Meißner, Universität Bonn/
Forschungszentrum Jülich
Nuclear Lattice Effective Field Theory: Status and Perspectives
- 11:45 S. Collins, Universität Regensburg
Flavour Structure of the Baryon Octet
- 12:30 Group Photograph
- 12:45 Lunch
- 14:00 A. Berg, Universität Konstanz
Conformational Analysis of Dual-Scale Simulations of Ubiquitin Chains
- 14:45 H. Gohlke, Forschungszentrum Jülich
Simulating Thioflavin T and Congo Red Binding to the Fibril Structure of Amyloid- β (1-42)
- 15:30 Coffee
- 16:00 F. B. Anders, Universität Dortmund
Optical Pumping of Electron Spins in Quantum Dot Ensembles
- 16:45 L. Schneider, Universität Göttingen
Engineering scale simulation of non-equilibrium network structures in copolymer materials
- 17:30 **Poster Session and Reception**
- 19:00 Transfer to Jülich

Friday, 28th February 2020

- 8:30 Transfer from Jülich
- 9:00 K. Albe, Technische Universität Darmstadt
First-principles study of In_2S_3 as alternative buffer material for $\text{Cu}(\text{In,Ga})(\text{Se,S})_2$ thin-film solar cells
- 9:45 T. Liseykina, Universität Rostock
Collective Effect of Radiation Friction in Laser-Driven Hole Boring of Dense Plasma Targets
- 10:30 Coffee
- 11:00 M. Hoefft, Thüringer Landessternwarte Tautenburg
Realising the LOFAR Two-Metre Sky Survey
- 11:45 P. Leleux, CERFACS, Toulouse
Massively Parallel Multigrid with Direct Coarse Grid Solvers
- 12:30 Lunch
- 14:00 D. Denker, RWTH Aachen
Sub-Grid Scale Modelling at Scale with Deep Learning and up to 60 Billion Degrees of Freedom
- 14:45 J. Schumacher, Technische Universität Ilmenau
Machine Learning Applications in Convective Turbulence
- 15:30 Coffee
- 16:00 H.-J. Hendricks-Franssen, Forschungszentrum Jülich
Data Assimilation with the Integrated Terrestrial System Model TSMP-PDAF
- 16:45 Th. Bohlen, Karlsruher Institut für Technologie
Applications of Seismic Full-Waveform Inversion on Shallow-Seismic and Ultrasonic Data
- 17:30 End of NIC Symposium
- 17:45 Transfer to Jülich and to Düren Train Station