

General Information

Venue

Auditorium of Forschungszentrum Jülich.

Oral Presentations

The Auditorium is equipped with overhead projectors, slide projectors, and a video projector.

Poster Session

We invite contributions in the form of poster presentations. 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 **20 January 2012** under the following link <http://www.fz-juelich.de/nic/symposium/>.

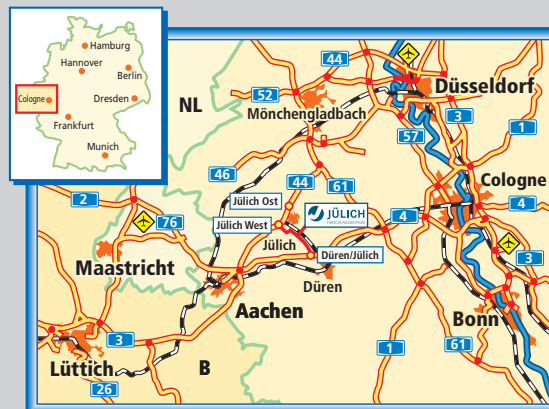
Accommodation

We have booked a number of rooms at hotels in Jülich, which will be held for NIC Symposium until **20 January 2012**. Please use the Online-Registration form to reserve a room. You will receive a confirmation of your room reservation from Ms. Elke Bielitza soon.

Reservations received after that date will be accepted on a space available basis.

Shuttle service will be provided from the hotels to the conference site.

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

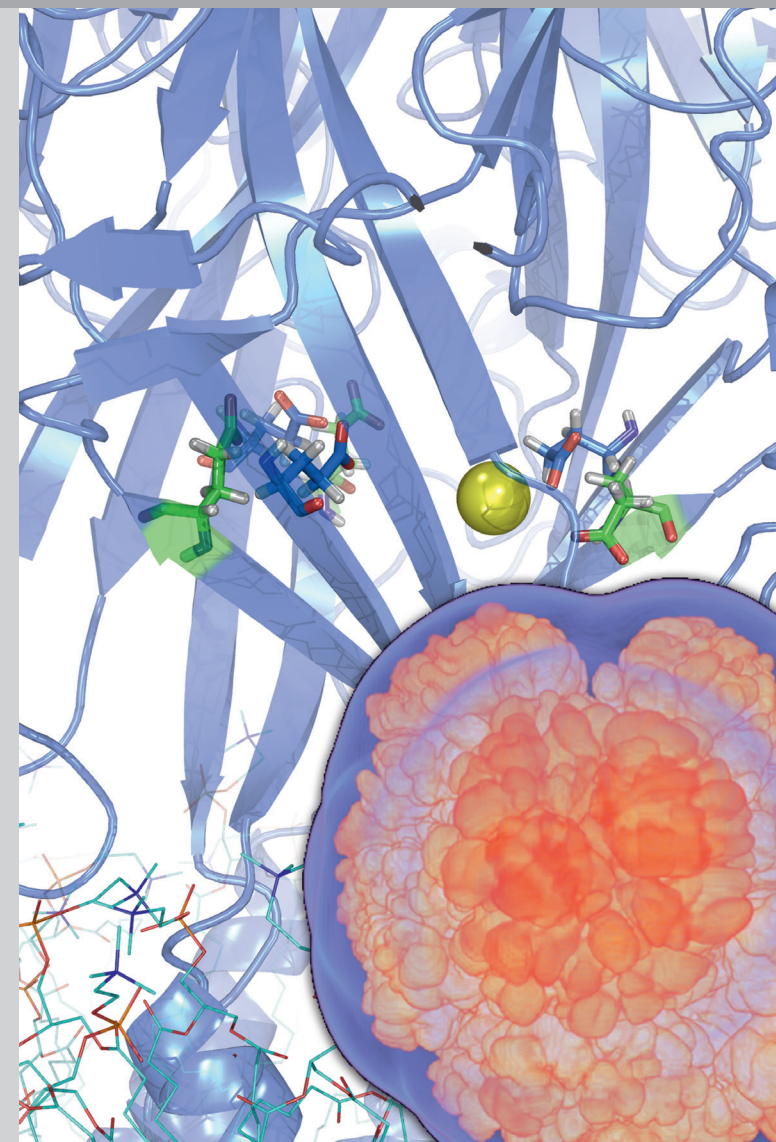
Additional information is available on the web at <http://www.fz-juelich.de/nic/symposium/> or contact the Symposium Secretary:

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NIC Symposium 2012

25 Years HLRZ/NIC

7 - 8 February 2012 | Jülich | Germany



The 6th NIC-Symposium marks also the 25th anniversary of the founding of the “Höchstleistungsrechenzentrum” (HLRZ), later renamed John von Neumann Institute for Computing (NIC). NIC – a joint foundation of Forschungszentrum Jülich, Deutsches Elektronen-Synchrotron (DESY) and Gesellschaft für Schwerionenforschung (GSI) – supports with its members’ supercomputer facilities more than 150 research groups at universities and national labs working on computer simulations in various fields of science.

Numerous scientific results of high impact in many different areas of research were obtained by the scientists who used the supercomputers in Jülich for their simulations. This symposium will give an overview of the history and the activities of the NIC, and of the results obtained in the last two years by research groups supported by the NIC.

Fifteen invited lectures will cover selected topics in the following fields:

- Astrophysics
- Biophysics
- Chemistry
- Elementary Particle Physics
- Condensed Matter
- Materials Science
- Soft Matter Science
- Environmental Research
- Hydrodynamics and Turbulence
- Plasma Physics
- Computer Science

These talks and an additional poster session are intended to inform a broad audience of scientists and the interested public about the research activities at NIC.

The proceedings of the symposium will cover projects that have been supported by the supercomputers JUROPA and IBM Blue Gene/P in Jülich in an even wider range than the lectures.

Organizing Committee

Kurt Binder
 Gernot Münster
 Manfred Kremer
 Walter Nadler
 Ms Elke Bielitz (Symposium Secretary)

Programme

Tuesday, 7 February 2012

- 8.30 Transfer from Jülich
- 8.45 Registration
- 9.00 Welcome Address by **A. Bachem**, Chairman of the Board of Directors, Forschungszentrum Jülich
- 9.15 **K. Binder**, Universität Mainz
25 years HLRZ/NIC: Taking the Lead in Supercomputing in Germany
- 9.45 **Th. Lippert**, Forschungszentrum Jülich
Supercomputing at Scale
- 10.30 Coffee
- 11.00 **A. Groß**, Universität Ulm
Ab initio Molecular Dynamics Simulations of Molecule-Surface Interactions
- 11.45 **W. Paul**, Universität Halle
Structure and Dynamics at Polymer-Solid Interfaces: A Molecular Dynamics Simulation of 1,4-Polybutadiene on Graphite
- 12.30 Lunch
- 14.00 **M. Ležaić**, Forschungszentrum Jülich
Computational Studies of Insulating Magnetic Oxides
- 14.45 **A. Muramatsu**, Universität Stuttgart
Quantum Spin Liquid in Correlated Fermions on a Graphene-Like Structure
- 15.30 Coffee
- 16.00 **N. Atodiresei**, Forschungszentrum Jülich
Understanding Molecular Electronics and Spintronics from First Principles Simulations
- 16.45 **U. Rüde**, Universität Erlangen
Highly Parallel Geometric Multigrid Algorithm for Hierarchical Hybrid Grids
- 17.30 Poster Session and Reception
- 19.00 Transfer to Jülich

Wednesday, 8 February 2012

- 8.30 Transfer from Jülich
- 9.00 **D. A. Fedosov**, Forschungszentrum Jülich
Mesoscale Simulations of Human Blood Flow: From Red Blood Cell Elasticity and Interactions to Blood Rheology
- 9.45 **J. Harting**, Universität Stuttgart
Colloidal Particles at Liquid Interfaces: From Bijels to Pickering Emulsions
- 10.30 Coffee
- 11.00 **U.-G. Meißner**, Universität Bonn
Nuclear Physics from Lattice Simulations
- 11.45 **O. Philipsen**, Universität Frankfurt
Probing the $N_f = 2$ QCD Phase Transition with Light Wilson Fermions
- 12.30 Lunch
- 14.00 **R. Banerjee**, Universität Hamburg
Generation of Strong Magnetic Fields via the Small-Scale Dynamo from Gravity Driven Turbulence
- 14.45 **J. P. Mellado**, MPI für Meteorologie
Direct Numerical Simulation of Turbulent Mixing in the Planetary Boundary Layer
- 15.30 Coffee
- 16.00 **D. Bauer**, Universität Rostock
Study of Plasma Formation and Ionization Dynamics in Intense Laser Fields by Means of Massively Parallel Particle-in-Cell Simulations
- 16.45 **G. Geiser**, RWTH Aachen
A Hybrid Aeroacoustic Prediction Method for Non-Reactive and Reactive Flows
- 17.30 Transfer to Jülich