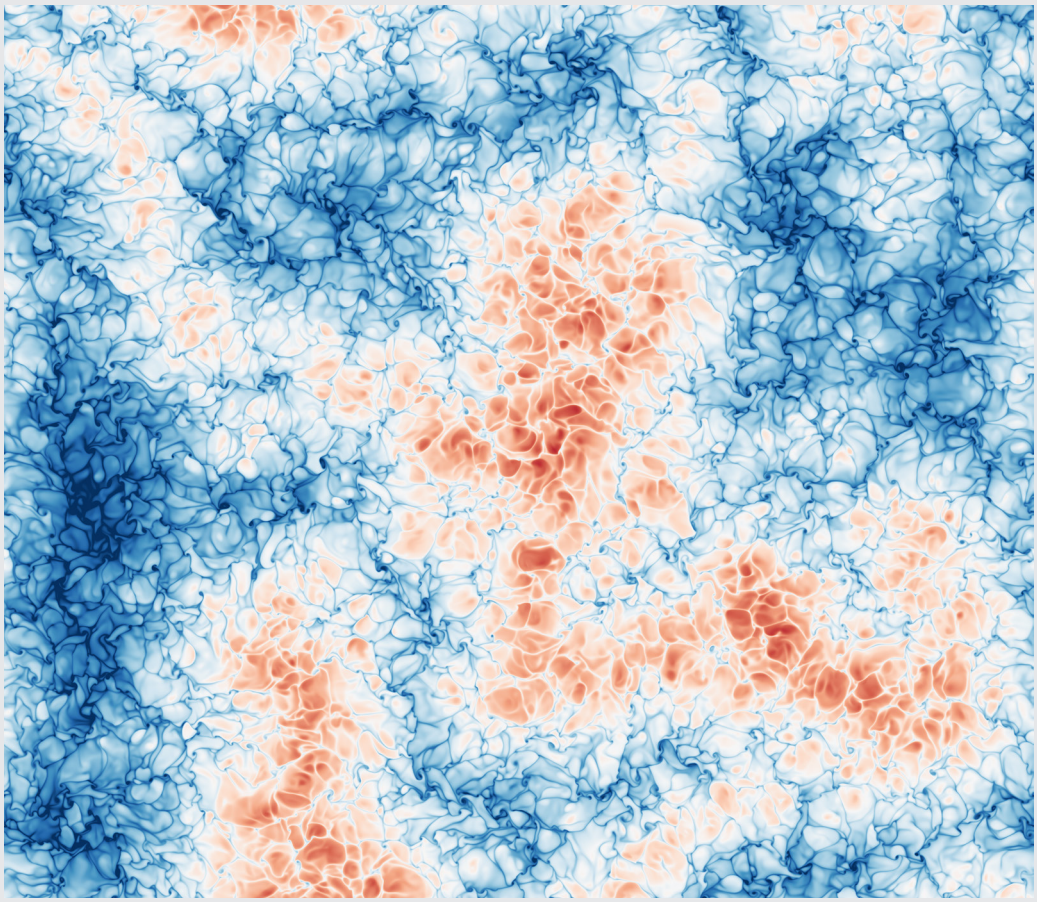
John von Neumann Institute for Computing

NIC Symposium 2022

29 – 30 September 2022 | Jülich, Germany

M. Müller, Ch. Peter, A. Trautmann (Editors)

Proceedings



NIC Series

Forschungszentrum Jülich GmbH
John von Neumann Institute for Computing (NIC)

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The John von Neumann Institute for Computing (NIC) was established in 1998 by Forschungszentrum Jülich and Deutsches Elektronen-Synchrotron DESY to support the supercomputeroriented simulation sciences. In 2006, GSI Helmholtzzentrum für Schwerionenforschung joined NIC as a contract partner.

The core task of NIC is the peer-reviewed allocation of supercomputing resources to computational science projects in Germany and Europe. The NIC partners also support supercomputer-aided research in science and engineering through a three-way strategy:

- Provision of supercomputing resources for projects in science, research, and industry.
- Supercomputer-oriented research and development by research groups in selected fields of physics and natural sciences.
- Education and training in all areas of supercomputing by symposia, workshops, summer schools, seminars, courses, and guest programmes for scientists and students.

The NIC Symposium is held biennially to give an overview on activities and results obtained by the NIC projects in the last two years. The contributions for this 11th NIC Symposium are from projects that have been supported by the supercomputers JUWELS and JURECA Booster in Jülich. They cover selected topics in the fields of Astrophysics, Biophysics, Chemistry, Elementary Particle Physics, Materials Science, Theoretical Condensed Matter, Soft Matter Science, Earth and Environment, Computer Science and Numerical Mathematics, Fluid Mechanics and Engineering, and Plasma Physics.

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