

Prof. Dr. rer. nat. Markus Diesmann

Institute for Advanced Simulations (IAS-6),
Computational and Systems Neuroscience,
& JARA Brain Institut (INM-10), Jülich Research Centre
Department of Psychiatry, Psychotherapy and Psychosomatics &
Department of Physics, RWTH Aachen University

ORCID-ID: 0000-0002-2308-5727



Recent Research Topics:

- correlation structure of neuronal networks
- brain-scale models of cortical networks
- simulation technology and supercomputing
- neuroscientific foundations for neuromorphic computing
- research software engineering

Scientific career:

Since 2016	Director, JARA-BRAIN Institut Brain Structure-Function Relationships: Decoding the Human Brain at systemic levels (INM-10), Jülich Research Centre
Since 2015	Co-opted professor, Institute of Physics, (Physics I), RWTH Aachen
Since 2013	Director, Institute for Advanced Simulation (IAS-6), Theoretical Neuroscience, Jülich Research Centre
Since 2011	Director, Institute of Neuroscience and Medicine (INM-6), Computational and Systems Neuroscience, Jülich Research Centre, in 2024 consolidated with IAS-6 to the joint institution "IAS-6, Computational and Systems Neuroscience", and full professor (W3), RWTH Aachen
2010-2011	Team leader at RIKEN Brain Science Institute, Wako City, Japan
2006-2010	Unit leader at RIKEN Brain Science Institute, Wako City, Japan (in joint lab with PD Dr. Sonja Grün)
2004-2006	Assistant professor (junior professor) of computational neurophysics, Institute of Biology (Biology III), University of Freiburg
2003-2004	Assistant professor (C1) of computational neurophysics, Dept. Neurobiology & Biophysics (Biology III), University of Freiburg
2002	PhD defense with distinction, Department of Physics, Ruhr University Bochum
1999-2003	Senior staff, Department of Nonlinear Dynamics, Max Planck Institute for Dynamics and Self-Organization, Göttingen
1996-1999	Doctoral studies, University of Freiburg

Selected scientific activities:

Since 2022	Co-Head of HiRSE_PS (Helmholtz Platform for Research Software Engineering- Preparatory Study)
Since 2021	Deputy Speaker of the JARA CSD Board of Directors, Jülich Research Centre
Since 2021	Member of the programm committee of the Käte Hamburger Kollegs "International Center for Advanced Science - Cultures of Research", RWTH Aachen

Since 2020	Deputy Speaker of Helmholtz PoF IV, Program 2, Natural, Artificial and Cognitive Information Processing.
Since 2019	Elected member of the Academy of Sciences and Literature, Mainz
Since 2019	Head of JuDocs (doctoral support program), Jülich Research Centre
Since 2018	Topic Spokesperson of POF IV Program 2 Topic 3 “Neuromorphic Computing and Network Dynamics”
2018-2022	Coordinator of the Helmholtz Incubator pilot project ACA
Since 2017	Member of International Advisory Board of NeuroMat, University of Sao Paulo, Brazil
2016-2018	Chair of Doctoral Committee, Jülich Research Centre
Since 2012	Member of the steering committee of the NEST Initiative, a society holding the copyright of the NEST Simulation Code which is distributed as open source under the GPL license.
2001	NEST Simulation Code released. Markus Diesmann is one of the two original authors. NEST is the most widely used code for large-scale neuronal network simulations and the central simulation tool for this purpose in the HBP

Publication metrics (June 2023)

- >130 peer-reviewed journal articles
- h-index: 54 (Google Scholar)
- total citations: 14584 (Google Scholar)