

Joachim Kopp

jkopp@uni-mainz.de • www.uni-mainz.de/~jkopp/

CONTACT INFORMATION

Institut für Physik (WA THEP)
Johannes Gutenberg-Universität
55099 Mainz, Germany
E-Mail: jkopp@uni-mainz.de
Phone: +49 175 85 92 387

Current position

2014 – present	Professor for theoretical elementary particle physics at University of Mainz, Germany / PRISMA Cluster of Excellence
----------------	---

Previous positions

2012 – 2014	Leader of an Otto Hahn Junior Research Group at Max Planck Institut für Kernphysik in Heidelberg, Germany
2009 – 2012	Research Associate at Fermilab in Batavia, IL, USA

University education

2009	Ph.D. from University of Heidelberg, Germany Final grade: 1.0 (1=best, 4=pass) Supervisor: Prof. Dr. Manfred Lindner
2006	Physics diploma from Technische Universität München (Germany) Final grade: 1.0 (1=best, 4=pass) Supervisor: Prof. Dr. Manfred Lindner

Distinctions

2014	Award of an ERC Starting Grant
2010	Otto Hahn Medal of the German Max Planck Society, combined with the offer of a position as leader of an Otto Hahn Junior Research Group (3–4 awards per year across all Max Planck Institutes and all subject areas)
2007 – 2009	Ph.D. scholarship from the Studienstiftung des Deutschen Volkes (German National Academic Foundation)
2004 – 2006	Undergraduate scholarship from the Studienstiftung des Deutschen Volkes

Main research topics

Neutrino physics: ‘New physics’ in the neutrino sector, quantum mechanical foundations of neutrino oscillations

Dark matter: Interpretation of results from direct and indirect searches and from colliders; cosmology; dark matter models

Collider physics: ‘New physics’ at the LHC

3rd Party Funding

2015–2020	ERC Starting Grant “New Directions in Neutrino Physics”
2015–2018	DFG Research Unit “New Physics at the LHC” (with H. Dreiner, M. Krämer, T. Plehn, J. Tattersall)
2014–2017	DFG Individual Grant “Beyond the Weak Interaction”

Service to the community

2007 – present	Organization/co-organization of conferences and workshops, e.g. 4-week MITP program “Neutrinos at the Crossroads”
2007 – present	Referee for Phys. Rev. Lett., Phys. Rev. D, JHEP, JCAP
2015 – present	Selection Committee of the Studienstiftung des Deutschen Volkes
2006 – present	Education and outreach: open days, field trips (CERN, LNGS) for high school and university students, Fermilab Ask-A-Scientist program, ‘Physik im Theater’, etc.
2009 – 2014	Organizer of theoretical physics seminars and journal clubs
2009 – 2012	Member of the International Design Study for the Neutrino Factory

Experimental and practical activities

Jul – Sep 2004	Student Trainee in the COMPASS collaboration at CERN
Mar 2004	Student Trainee in experimental astroparticle physics at TU München
Jun/Jul 2001	Internship at Max Planck Institut für Plasmaphysik in Munich
2000 – 2002	Appointments as software developer for HEITEC AG Regensburg

Teaching

2013 – present	Lectures on QFT (beginner + advanced), Theoretical Particle Physics, Neutrino Physics, Dark Matter, Undergraduate Mathematics.
----------------	--

Students

2015 – present	Mona Dentler (Ph.D. expected 2018)
2013 – present	Lisa Michaels (Ph.D. expected 2018)
2014 – present	Malte Buschmann (Ph.D. expected 2017)
2014 – present	Vedran Brdar (Ph.D. expected 2017)
2012 – 2013	Johannes Welter (M.Sc. 2012, now Ph.D. student in Heidelberg)
2010 – 2011	Yuhsin Tsai (co-supervision, Ph.D. 2012, now postdoc at U of Maryland)
2011	Carlos A. Argüelles (co-supervision, M.Sc. 2012, now postdoc at MIT)
2010	Pedro A. N. Machado (co-supervision, Ph.D. 2012, now postdoc at Fermilab)

Computing

Computer languages: C/C++, Python, Fortran, Pascal, Java, HTML, ...
Scientific software: Mathematica, LaTeX, ROOT, HEP MC tools
Multimedia: Photoshop, Illustrator, DirectX, Multimedia authoring
System administration (Linux, Mac OS, Windows), networking, hardware

Languages

German (native), English (fluent), French (very good), Japanese (basic)
