

Prof. Dr. Jeroen van den Brink

Director
Institute for Theoretical Solid State Physics
IFW Dresden
Helmholzstrasse 20, 01069 Dresden, Germany

Professor
Theoretical Condensed Matter Physics
TU Dresden
Germany

Principle Fields of Interests

Materials and Nano Science - Theory of Quantum Matter - Correlated Electrons Systems and Many Body Physics - Topological States of Matter - Theoretical Photon Science - Quantum Magnetism - Unconventional Superconductivity - Graphene and Van der Waals Materials - Ab Initio Electronic Structure Theory - Curved Nano Membranes

Professional Experience

since 10/2009 Director of the Institute for Theoretical Solid State Physics,
IFW Dresden (Germany)
since 10/2009 Professor of Theoretical Condensed Matter Physics,
TU Dresden (Germany)
1/2016-5/2016 Visiting Scholar, Harvard University, Cambridge (USA)
1/2009-9/2009 Visiting Professor, Stanford University, Stanford (USA)
2005 - 2013 Extraordinary Professor of Theoretical Condensed Matter Physics,
Radboud University, Nijmegen (Netherlands) (part-time)
2002 - 2009 Springplank Fellow, Instituut Lorentz for Theoretical Physics,
Leiden University (Netherlands)
1999 - 2002 Associate Professor (tenured), University of Twente,
Enschede, (Netherlands)
1997 - 1999 Postdoc and Humboldt Fellow, Max-Planck-Institut für Festkörperforschung,
Stuttgart (Germany)

Educational Background

1993-1997 PhD in Physics, Rijksuniversiteit Groningen (Netherlands)
Supervisors: G.A. Sawatzky and D.I. Khomskii
1990 Erasmus Exchange Student, Technical University Berlin (Germany)
1987-1993 Diploma in Physics, Rijksuniversiteit Groningen (Netherlands)
Supervisor: G.A. Sawatzky

Selected Professional Advisory Activities

- 2013 Member of Selection Committee, *Swiss Centers of Excellence*, Swiss Science Foundation
- 2012 Member of Evaluation Committee, *Gravitation Program*
Netherlands Organization for Scientific Research (NWO)
- since 2011 Member of various Review Committees, European Synchrotron
Radiation Facility (ESRF), Grenoble (France)
- 2011-2015 Member of Executive Board, *Journal of Physics: Condensed Matter* (UK)
- 2010-2015 Member of International Scientific Advisory Board, National Research
Council, CNR-SPIN (Italy)
- since 2010 Member of Editorial Board, *Journal of Physics: Condensed Matter* (UK)
- since 2009 Advisory Member, *Computational Materials & Chemical Sciences Network* (DOE, USA)
- 2008 Chairman of Selection Committee, *VENI Program* (NWO, Netherlands)
- Evaluator of Research Proposals for FOM (The Netherlands), NWO (The Netherlands), NSF (USA), DOE (USA), DFG (Germany), AvH (Germany), SNF (Switzerland), FWF (Austria), GSF (Georgia), CNR (Italy), FNRS (Belgium), NSC (Poland), European Research Council, European Commission.
 - Nature Publishing Group: Exceptional Referee (2012, '13, '14), One of Best Referees ('15).

Publications

> 200 published papers, of which > 60 in Physical Review Letters, > 20 in the Nature journals and in total > 10.000 citations, h-index 51.

> 100 presentations at international conferences, workshops & research schools, > 90 invited talks at universities and other research institutes.

Complete list of publications and presentations available at:

<http://www.ifw-dresden.de/about-us/people/prof-dr-jeroen-van-den-brink/>

Some relevant publications:

- B. Rasche, A. Isaeva, M. Ruck, S. Borisenko, V. Zabolotnyy, B. Buchner, K. Koepf, C. Ortix, M. Richter and J. van den Brink, *Stacked topological insulator built from bismuth-based graphene sheet analogues*
Nature Materials 12, 422 (2013)
- J. Schlappa, K. Wohlfeld, K. Zhou, M. Mourigal, M. W. Haverkort, V. N. Strocov, L. Hozoi, C. Monney, S. Nishimoto, S. Singh, A. Revcolevschi, J.-S. Caux, L. Patthey, H. M. Ronnow, J. van den Brink and T. Schmitt, *Spin-orbital separation in the quasi-one-dimensional Mott insulator Sr_2CuO_3*
Nature 485, 82 (2012)
- G. Giovannetti, P. Khomyakov, G. Brocks, V. Karpan, J. van den Brink, P. Kelly, *Doping graphene with contacts*
Phys. Rev. Lett. 101, 026803 (2008)
- G. Giovannetti, P.A. Khomyakov, G. Brocks, P. Kelly and J. van den Brink, *Substrate-induced bandgap in graphene on hexagonal boron nitride*
Phys. Rev. B 76, 073103 (2007)
- D.V. Efremov, J. van den Brink and D.I. Khomskii, *Bond- versus site-centred ordering and possible ferroelectricity in manganites*
Nature Materials 3, 853 (2004)