

S. Thomas Vojta

Curators' Distinguished Professor and Chair, Department of Physics
Missouri University of Science and Technology

January 27, 2023

Mail address: Department of Physics, Missouri University of Science and Technology,
1315 N. Pine Street, Rolla, MO 65409-06403, USA
Phone: +1 573 341-4793, fax +1 573 341-4715, home phone +1 573 426-3038
Email and Web: vojtat@mst.edu, <http://web.mst.edu/~vojtat/>

Education:

12/1999: Department of Physics, Chemnitz University of Technology (Germany)
Habilitation (postdoctoral degree required for a faculty position in Germany)
Thesis title: *Quantum and classical phase transitions in electronic systems*
11/1993–02/1995: Department of Physics, Chemnitz University of Technology (Germany)
PhD in Physics (December 1994, Advisor: Michael Schreiber)
Thesis title: *Disorder and interactions in systems with localized states*
03/1992–11/1993: Department of Chemistry, University of Mainz (Germany)
09/1986–03/1992: Department of Physics, University of Dresden (Germany)
Diploma (compares to MS) in Physics (June 1991, Advisor: Walther John)
Thesis title: *Coulomb gap in the one-dimensional Efros model*

Appointments:

from 01/2018: Department Chair
Department of Physics, Missouri University of Science and Technology
from 01/2017: Curators' Distinguished Professor of Physics
Department of Physics, Missouri University of Science and Technology
09/2011–12/2016: Professor of Physics
Department of Physics, Missouri University of Science and Technology
09/2006–08/2011: Associate Professor of Physics
Department of Physics, Missouri University of Science and Technology
01/2002–08/2006: Assistant Professor of Physics
Department of Physics, University of Missouri–Rolla
03/2001–12/2001: Heisenberg Fellow
Department of Theoretical Physics, University of Oxford (UK)
12/1996–02/2001: Research Associate / Senior Research Associate
Institute of Physics, Chemnitz University of Technology (Germany, Advisor: Michael Schreiber)
03/1995–11/1996: Postdoctoral Researcher
Department of Physics, University of Oregon (Advisor: Dietrich Belitz)

Visiting Appointments:

07–09/2017, 07/2010, 01–03/2005: Kavli Institute for Theoretical Physics, Santa Barbara
01–07/2009: Max-Planck Institute for Physics of Complex Systems, Dresden (Germany)
03–12/2001: Wolfson College, Oxford (UK)
07–08/2000, 07–08/99, 09/98, 07–11/97: Department of Physics, University of Oregon

Honors and Awards:

- Fellow of the American Physical Society, 2015
- Cottrell Scholar of Research Corporation, 2005
- Heisenberg Fellow of German Research Foundation, 2000
- Postdoctoral Fellowship, German Research Foundation, 1996
- Fellowship of the German Academic Exchange Service, 1995

Publications and Talks:

7 review articles

156 research papers in refereed journals + 2 submitted

24 printed proceedings and book chapters

3 popular science articles

55 invited talks at national or international meetings

107 seminar and colloquium talks

192 conference contributions

5489 citations, h-index 35, i10-index 105 (Google Scholar data)

(for complete publication list see separate sheets)

Grants: (total more than \$4.9 million, T.V.s portion \$3.1 million including NSF single-PI awards totalling \$1.8 million)

- co-PI (39% effort), *CRCNS US-German Research Proposal: Stochastic Axon Systems: From Spatial Dynamics to Self-Organization*, National Science Foundation, 12/2021 – 11/2024, \$700,000
- PI (34% effort), *MRI: Acquisition of a Supercomputer to Enable Advanced Computational Science and Engineering Research and Education in Missouri*, National Science Foundation, 09/2019–08/2021, \$1,960,000
- PI (100% effort), *SEED: Fractional random walk approach to serotonergic fibers*, Research Corporation, 10/01/2019–09/30/2022, \$50,000
- PI (100% effort), *Disorder and dynamics in quantum materials*, National Science Foundation, 09/2018–08/2022, \$354,000
- PI (100% effort), *Unconventional Quantum Phase Transitions*, National Science Foundation, 01/2016–05/2019, \$339,000
- co-PI (43% effort), *Phase transitions in silico and in vivo*, University of Missouri Interdisciplinary Intercampus Research Program, 08/2015–07/2016, \$86,959
- PI (100% effort), *Brazil-U.S. Professorship/Lectureship Program*, American Physical Society, 08/2014–08/2015, \$4,000
- PI (100% effort), *Unconventional Quantum Phase Transitions*, National Science Foundation, 08/2012–07/2015, \$379,897
- PI (100% effort), *Quantum phase transitions: disorder, dynamics, and frustration*, National Science Foundation, 09/2009–08/2013, \$324,000
- co-PI (15% effort), *Percolation networks at magnetic quantum phase transitions*, University of Missouri Research Board, 09/2007–08/2009, \$32,360
- PI (100% effort), *Cottrell: Disordered electronic quantum phase transitions and interactive approach to teaching computational physics*, Research Corporation, 05/2005–04/2010, \$100,000

- PI (100% effort), *Nonequilibrium quantum phase transitions*, University of Missouri Research Board, 01/2005–12/2005, \$14,508
- PI (100% effort), *CAREER: Quantum phase transitions in electronic systems*, National Science Foundation, 06/2004–12/2010, \$400,000
- PI (100% effort), *Quantum phase transitions in disordered systems*, University of Missouri Research Board, 01/2002–12/2002, \$21,920
- PI (100% effort), *Dynamic behavior and glassiness of disordered correlated many-particle systems*, German Research Foundation, 01/1999–12/2001, \$63,000 (converted from DM)
- PI (100% effort), *Magnetic quantum phase transitions of itinerant electrons*, German Research Foundation, 01/2000–12/2001, \$41,000 (converted from DM)
- co-PI (50% effort), *Dynamic behavior and glassiness of disordered correlated many-particle systems*, German Research Foundation, 01/1996–12/1998, \$59,000 (converted from DM)

Teaching:

Missouri S&T/UMR (01/2002–present, cumulative average teaching evaluation score : 3.5/4)

- graduate classes: *Solid State Physics*, *Topics in Condensed Matter Physics*, *Statistical Mechanics*, and *Quantum Statistical Mechanics*
- upper level undergraduate classes: *Thermal Physics*, *Computational Physics* and *Chaos and Nonlinear Dynamics*
- introductory undergraduate class *Engineering Physics II*
- Postdocs supervised: 3
- PhD students supervised: 12 (9 finished), MS students supervised: 2 (2 finished)
- undergraduate students involved in research: 32

Chemnitz University of Technology (04/1998–02/2001):

- graduate classes in *Condensed Matter Theory* and in *Physics of Phase Transitions*
- laboratories in computational physics
- physics classes for gifted high school students
- PhD students supervised: 1 (finished), MS students supervised: 1 (finished)

Professional Activities:

- Referee for several journals, including *Science*, *Nature Physics*, *Nature Communications*, *Physical Review Letters*, *Physical Review B*, *Physical Review E*, *Reviews of Modern Physics*, *New Journal of Physics*, *European Physical Journal B*, *Journal of Physics A*, *Journal of Physics: Condensed Matter*, *Journal of Low-Temperature Physics*, *Physics Letters A*, *Physica A*, *physica status solidi (b)*
- Reviewer for National Science Foundation, Department of Energy, Petroleum Research Fund, US-Israel Binational Science Foundation, Natural Sciences and Engineering Research Council of Canada, Austrian Science Fund and German Research Foundation
- Organizer and co-organizer of several international conferences and workshops
- Editorial Board Member of *European Physical Journal B*, since 2012
- Editorial Board Member of *Journal of Statistical Mechanics*, 2004 – 2007

University Service:

Missouri University of Science and Technology (01/2002–present):

- Chair, Associate Dean Search Committee (2022-2023)
 - CEC Dean Search Committee (2021-2022)
 - Chair, Department Chair Council (2020-2021)
 - Vice Chair, Department Chair Council (2019-2020)
 - CASB Associate Dean Search Committee (2018-2019)
 - Chair, Campus Information Technology and Computer Committee (2013-2018)
 - Chair, Research Computing Task Force (2008-2013)
 - Campus Information Technology and Computer Committee (2006-2013)
 - CIO Search Committee (2012)
 - Reviewer for UM Research Board (2004-present)
 - Academic Council (2004)
-
- Chair, Physics Space Committee (2007-2018)
 - Chair, Physics Program Review Committee (2013-2017)
 - Chair, Physics Faculty Search Committee (2013-2014)
 - Physics Long-Range Planning Committee (2006-present)
 - Physics Graduate Admission Committee (2005-2018)
 - Physics Computer Committee (2002-2017)
 - Physics Faculty Search Committee (2004-2005, 2007-2008, and 2014-2015)
 - Physics Schearer Competition Chair (2007)
 - Physics Fuller Competition Judge (2012, 2005)
 - Physics Colloquium Chairman (2002-2004)

Chemnitz University of Technology (04/1998–02/2001):

- Program committee for undergraduate program in *Computational Science* (1999–2001)
- Faculty search committee (1999–2000)