

## S. Thomas Vojta

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

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### 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

152 research papers in refereed journals + 1 submitted

24 printed proceedings and book chapters

3 popular science articles

53 invited talks at national or international meetings

104 seminar and colloquium talks

183 conference contributions

5010 citations, h-index 33, i10-index 97 (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, 10/01/2019–09/30/2021, \$50,000
- PI (100% effort), *Disorder and dynamics in quantum materials*, National Science Foundation, 09/2018–08/2021, \$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: *Computational Physics* and *Chaos and Nonlinear Dynamics*
- introductory undergraduate class *Engineering Physics II*
- Postdocs supervised: 3
- PhD students supervised: 11 (8 finished), MS students supervised: 2 (2 finished)
- undergraduate students involved in research: 30

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, Department Chair Council (2020-2021)
- Vice Chair, Department Chair Council (2019-2020)
- 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)