

SENTHIL TODADRI

Curriculum Vitae

Department: Physics
Address: 77 Massachusetts Ave., Room 6C-313
Massachusetts Institute of Technology
Cambridge, MA 02139-4307

Phone: 617-253-6831
Email: senthil@mit.edu

Professional preparation:

- Ph.D in Physics, Yale University, 1997.
Thesis title: *Quantum phase transitions in random spin systems.*
Thesis advisor: Prof. Subir Sachdev
- September 1997 to Jan 2001, Postdoctoral Fellow, Kavli Institute for Theoretical Physics, University of California, Santa Barbara.
Postdoctoral Supervisor: Prof Matthew P.A. Fisher.

Employment:

- January 2001 to December 2004, Assistant Professor of Physics, Massachusetts Institute of Technology, Cambridge, MA.
- January 2005 to January 2007 (on leave from MIT): Associate Professor of Physics, Indian Institute of Science, Bangalore (India).
- January 2007 to June 2011: Associate Professor of Physics, Massachusetts Institute of Technology, Cambridge, Massachusetts.
- July 2011- present: Professor of Physics, Massachusetts Institute of Technology, Cambridge, Massachusetts.

Honors and awards:

1. Josiah Willard Gibbs Fellowship for the year 1992, Yale University
2. NEC Fund Award from the MIT Research Support Committee, July 2002
3. Alfred P. Sloan Research Fellow, Sept. 2002- Sept. 2006.
4. Research Innovation Award from The Research Corporation, May 2003.
5. Outstanding Investigator Award from the Science Research Council of the Department of Atomic Energy, India, Aug 2005.

6. Outstanding Young Physicist Award from the American chapter of the Indian Physics Association, March 2009
7. Kavli Frontiers Fellow, The Kavli Foundation, 2011.
8. Distinguished Visiting Research Chair, Perimeter Institute for Theoretical Physics, Waterloo, Canada, 2011-2014.
9. Simons Theoretical Physics Fellowship, 2012-2013.
10. Simons Investigator Award, 2013-2018
11. Fellow, American Physical Society, 2013
12. Subrahmanyam Chandrasekhar Lecturer, International Center for Theoretical Sciences, 2015

Membership:

1. General Member, Aspen Center for Physics
2. Foreign Member, Quantum Materials Program, Canadian Institute for Advanced Research
3. Member, International Advisory Board, International Center for Theoretical Sciences, India

Service :

1. Co-organizer, KITP conference on "Closing the entanglement gap: Quantum information, quantum matter, and quantum fields", June 2015.
2. Co-organizer, Boulder summer school on "Superconductivity", July 2014.
2. Co-organizer, Aspen winter conference on "Beyond quasiparticles: new paradigms for quantum fluids", Jan 2014.
4. Co-organizer, Indian condensed matter program, Goa, India, 2007; conference on "Physics near the Mott Transition", Bangalore 2006;
5. Regular referee for Physical Review Letters, Physical Review B, Nature, Nature Physics, Science, and other journals.
6. Referee for grants submitted to US National Science Foundation, Department of Energy.

Ph.D students

1. Nikolic, Predrag, 2004.

Thesis title: Geometrically frustrated quantum magnets

Subsequent position: Postdoctoral Fellow, Harvard University

Current position: Assistant Professor: George Mason University.

2. Ghaemi, Pouyan, 2008

Thesis title: Phases and phase transitions of strongly correlated electron systems

Subsequent position: Postdoctoral Fellow, UC Berkeley

Current position: Assistant Professor, City University of New York

3. Grover, Tarun, 2010

Thesis title: Applied fractionalization: Quantum phases and phase transitions of strongly interacting systems.

Subsequent position: Postdoctoral Fellow, UC Berkeley.

Current position: Postdoctoral Fellow, Kavli Insitute for Theoretical Physics, Santa Barbara

4. Mross, David, 2013

Thesis title: Exotic phases and quantum criticality in gapless correlated electron systems

Current position: IQIM Post-doctoral Fellow, Caltech.

5. Wang, Chong, 2015

Thesis title: Entangling symmetry and topology in correlated electrons

Current position: Junior Fellow, Society of Fellows, Harvard.

6. Pretko, Michael, current

7. Zou, Liujun, current

8. Zhang, Yahui, current

9. Siegenfeld, Alex, current

Post-doctoral researchers supervised

1. Motrunich, Olexei, 2001-2003 (joint with P.A. Lee)

Current position: Professor of Physics, Caltech.

2. Vishwanath, Ashvin, 2001-2004 (Pappalardo Fellow)

Current position: Professor of Physics, UC Berkeley.

3. Hermele, Michael, 2005 – 2007 (joint with P.A. Lee and X.G. Wen)

Current position: Associate Professor of Physics, University of Colorado, Boulder.

4. Wang, Fa, 2009 – 2012 (Pappalardo Fellow)

Current position: Assistant Professor of Physics, Beijing University, China.

5. Flint, Rebecca, 2010 – 2013 (Simons Fellow)

Current position: Assistant Professor of Physics, Iowa State University

6. Nahum, Adam, 2013-present (Moore Fellow)

7. Savary, Lucile, 2014 - present (Moore Fellow)

8. Sodemann, Inti, 2014 - present (Pappalardo Fellow)

9. Kimchi, Itamar, 2015 - present (Pappalardo Fellow)

10. Lederer, Sam, 2015 - present (Moore Fellow)