

## Biographical Sketch – Maxim G. Vavilov

### Professional Preparation

Moscow Institute of Physics and Technology	Physics	M.S.	1997
Cornell University	Physics	Ph.D.	2001
Theoretical Physics Institute, University of Minnesota	Theoretical Physics	Post Doc	2001-2003
Massachusetts Institute of Technology	Theoretical Physics	Post Doc	2003-2004
Yale University	Theoretical Physics	Post Doc	2004-2006

### Appointments

Assistant Professor	University of Wisconsin-Madison	2006-present
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### Awards.

Soros	1996
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### Publications (out of a total of 26) -- selections from last 5 years:

1. Giant Magneto-Oscillations of Electric-Field-Induced Spin Polarization in 2DEG, M. G. Vavilov, Phys. Rev. B **72**, 195327 (2005); cond-mat/0510024.
2. Quantum Chaotic Scattering in Time-Dependent External Fields: Random Matrix Approach, M. G. Vavilov, J. Phys. A: Math. Gen. **38**, 10587 (2005); cond-mat/0510254.
3. Photovoltaic and Rectification Currents in Quantum Dots, M. G. Vavilov, L. DiCarlo, and C. M. Marcus, Phys. Rev. B **71**, 241309 (2005); cond-mat/0410042.
4. Theory of Microwave-Induced Oscillations in the Magnetoconductivity of a 2DEG, I. A. Dmitriev, M. G. Vavilov, I. L. Aleiner, A. D. Mirlin, and D. G. Polyakov, Phys. Rev. B **71**, 115316 (2005); cond-mat/0409590.
5. Transport Spectroscopy of Kondo Quantum Dots Coupled by RKKY Interaction, M. G. Vavilov and L. I. Glazman, Phys. Rev. Lett. **94**, 086805 (2005); cond-mat/0404366.
6. Magnetotransport in two-dimensional Electron Gas at Large Filling Factors, M. G. Vavilov and I. L. Aleiner, Phys. Rev. B **69**, 035303 (2004); cond-mat/0305478.
7. Quantum Disorder and Quantum Chaos in Andreev Billiards, M. G. Vavilov and A. I. Larkin, Phys. Rev. B **67**, 115335 (2003); cond-mat/0210033.
8. Noise through Quantum Pumps, M. L. Polianski, M. G. Vavilov, P. W. Brouwer, Phys. Rev. B **65**, 245314 (2002).

9. Charge Pumping and Photovoltaic Effect in Open Quantum Dots, M. G. Vavilov, V. Ambegaokar, and I. L. Aleiner, Phys. Rev. B **63**, 195313 (2001).
10. Universal Gap Fluctuations in the Superconductor Proximity Effect, M. G. Vavilov, P. W. Brouwer, V. Ambegaokar, and C. W. J. Beenakker, Phys. Rev. Lett. **86**, 874 (2001).

Synergistic Activities

- Referee for Phys. Rev. Lett., Phys. Rev. B and Nature journals

Collaborators & Other Affiliations

(i) *Collaborators*

I. L. Aleiner	Columbia University
L. DiCarlo	Harvard University
I. A. Dmitriev	Institut fur Nanotechnologie, Karlsruhe, Germany
V. M. Galitski	University of Maryland
S. M. Girvin	Yale University
L. I. Glazman	Theoretical Physics Institute, University of Minnesota
A. I. Larkin	Theoretical Physics Institute, University of Minnesota
C. M. Marcus	Harvard University
A. D. Mirlin	Institut fur Nanotechnologie, Karlsruhe, Germany
D. G. Polyakov	Institut fur Nanotechnologie, Karlsruhe, Germany
A. D. Stone	Yale University

(ii) *Graduate & Postdoctoral Advisors*

Professor Vinay Ambegaokar	Cornell University
Professor Anatoly Larkin	University of Minnesota
Professor Leonid Levitov	Massachusetts Institute of Technology
Professor A. Douglas Stone	Yale University

(iii) *Thesis Advisor*

Due to the early stage of my career, I have not yet had an opportunity to advise or sponsor graduate students or postdoctoral researchers.