

Brad R. Conrad

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Citizenship: U.S.A.

Education:

Ph.D. candidate in Physics
Masters in Physics, May 2006
University of Maryland, College Park, MD 20742

Bachelor of Science in Physics & Minor in Modern World History
Highest Honors, Honors Program, May 2004
Rochester Institute of Technology, Rochester, NY 14623

Professional Experience:

- **Graduate Research Assistant** *Surface Physics Group/UMD M.R.S.E.C.*
University of Maryland, College Park **Fall 2005-Current**
STM studies of Organic Materials, Semiconductor growth, Transport/Growth studies on OFET's, OFET Noise measurements, First Passage studies on Al/Si(111)-(sqrt(3)×sqrt(3))
- **Graduate Research Assistant** *Center for Superconductivity Research*
University of Maryland, College Park **Summer 2005**
STM Near Field Scanning Microwave Microscopy of Colossal Magnetoresistive Materials, Superconducting Crystals
- **Undergraduate Research Assistant** *National Institute of Standards and Technology*
Summer Undergraduate Research Fellowship Program **Summer 2004 & 2002**
Materials Science and Engineering Laboratory, Polymers ('04) and Ceramics Division ('02)
- **Undergraduate Research Assistant** *Nanopower Research Laboratories*
RIT, Rochester NY **2002-2004**
Fuel Cell/Solar Cell/Battery Characterization

Teaching Experience:

- **MRSEC Educational Outreach** *Material Research Science and Engineering Center*
University of Maryland, College Park **2005 - Current**
See attached document for more details
- **Graduate Teaching Assistant** *Physics Department*
University of Maryland, College Park **2004 - 2005**
Teaching Assistant for Intro Physics sequence aimed at Premeds using Group Based Learning

Awards/Positions:

- APS, Forum on Graduate Student Affairs, Elected Member-at-large 2008-2010
- Chair of the Campus Student Tech Fee Advisory Committee 2007-2008
 - Vice Chair of the Campus Student Tech Fee Advisory Committee 2006-2007
- Graduate Student Government (GSG) Physics Representative 2004-2005, 2008-2009
- University of Maryland College Park Senator 2007-2008

- University Senate Student Affairs Committee 2007-2008
- University of Maryland Senate Committee on Committees 2007-2008
- GSG Governing Documents Review Committee 2006-2008
- GSG, Vice President of Committee Affairs 2006-2007
- GSG, Parliamentarian 2005-2006
- Ralph D. Myers Graduate Student Teaching Award Runner-Up, 2004-2005
- RIT Outstanding Undergraduate Scholar 2004
- John Wiley Jones Award for Academic Achievement and Service 2004
- RIT Honors Program Summer Research Award 2003
- Society of Physics Students National Council Member, Zone 2 2003
- Sigma Pi Sigma, RIT Chapter

Publications:

- **Spatial first-passage statistics of Al/Si(111)-(sqrt(3)×sqrt(3)) step fluctuations**
B. R. Conrad, W. G. Cullen, D. B. Dougherty, I. Lyubinetsky, and E. D. Williams
Phys. Rev. E 75, 021603 (2007) doi:10.1103/PhysRevE.75.021603
- **Percolative effects on noise in pentacene transistor**
B. R. Conrad, W. G. Cullen, W. Yan, and E. D. Williams
Appl. Phys. Lett. 91, 242110 (2007) doi:10.1063/1.2823577
- **Effect of Impurities on Pentacene Thin Film Growth for Field-Effect Transistors**
Elba Gomar-Nadal, B. R. Conrad, W. G. Cullen, E. D. Williams
J. Phys. Chem. C., 112(14); 5646-5650 (2008). doi: 10.1021/jp711622z
- **Effect of impurities on pentacene island nucleation**
B. R. Conrad, Elba Gomar-Nadal, W. G. Cullen, A. Pimpinelli, T.L. Einstein, E. D. Williams
(Accepted to PRB) Phys. Rev. B 77, 205328 (2008) . doi:10.1103/PhysRevB.77.205328

Invited talks:

- **Organic Electronics**
Foundations and Frontiers of Physics - University of Maryland
February 2008 College Park, Md
- **Impurity effects on pentacene nucleation and thin film growth**
Organic Electronics Seminar
July 2008 Gaithersburg, Md

References:

Ellen D. Williams

Distinguished University Professor, University of Maryland
Department of Physics and Institute for Physical Science and Technology, University of Maryland
College Park, MD 20742-4111
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Theodore L. Einstein

Professor of Physics, University of Maryland
Department of Physics, University of Maryland
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William G. Cullen

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