

JONATHAN R. SKUZA

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EDUCATION

THE COLLEGE OF WILLIAM & MARY

Williamsburg, Virginia

- Ph.D. Candidate (2007 - Present)

THE UNIVERSITY OF TOLEDO

Toledo, Ohio

- M.S. in Physics (2007)

BALDWIN-WALLACE COLLEGE

Berea, Ohio

- B.S. in Physics; Magna Cum Laude (2004)

PADUA FRANCISCAN HIGH SCHOOL

Parma, Ohio

- Diploma; Honors (2000)

RESEARCH EXPERIENCE

THE COLLEGE OF WILLIAM & MARY

Williamsburg, Virginia

- Research Advisor: Dr. R. A. Lukaszew (2007 - Present)
- Structure-property correlations
- FePt(Pd) thin films and nanostructures
- Au-Co and Ag-Co thin films and nanostructures
- Three successful beamtime experiments at the Advanced Photon Source at Argonne National Laboratory

THE UNIVERSITY OF TOLEDO

Toledo, Ohio

- Research Advisor: Dr. R. A. Lukaszew (2005 - 2007)
- Real time x-ray rapid thermal annealing studies of FePt thin films using synchrotron radiation

MICHIGAN STATE UNIVERSITY
National Superconducting Cyclotron Laboratory
East Lansing, Michigan

- Research Experiences for Undergraduates (June 2003 - August 2003)
- Advisor: Dr. Thomas Glasmacher
- Wrote computer program using *Mathematica* to assist in determining angular momentum states

THE UNIVERSITY OF TOLEDO

Toledo, Ohio

- Research Experiences for Undergraduates (June 2002 - August 2002)
- Advisor: Dr. T. J. Kvale
- Assisted in the design of a new electrostatic lens for UT-P/NIELS using the computer program *Simion*

TEACHING EXPERIENCE

THE UNIVERSITY OF TOLEDO

Toledo, Ohio

- Co-taught one PHYS 3180 Electronics Lab with Dr. R. A. Lukaszew (Spring 2005)
- Taught one PHYS 2080 First-Year Algebra Based E&M Lab (Spring 2005)
- Taught four PHYS 2140 First-Year Calculus Based E&M Labs (Fall 2004)
- Taught one PHYS 2140 First-Year Calculus Based E&M Lab (Summer 2004)

BALDWIN-WALLACE COLLEGE

Berea, Ohio

- First-Year Physics Teaching Assistant (August 2002 - May 2004)
 - Held tutoring sessions twice a week
 - Assisted Dr. Daniel Tonn in grading assignments

REFEREED PUBLICATIONS

C. Clavero, J. R. Skuza, Y. Choi, D. Haskel, J. M. Garcia-Martin, A. Cebollada, and R. A. Lukaszew, *Appl. Phys. Lett.* **92**, 162502 (2008). "Control of the perpendicular magnetic anisotropy of FePd films via Pd capping deposition"

J. B. Gonzalez-Diaz, A. Garcia-Martin, G. Armelles, J. M. Garcia-Martin, C. Clavero, A. Cebollada, R. A. Lukaszew, J. R. Skuza, D. P. Kumah, and R. Clarke, *Phys. Rev. B* **76**, 153402 (2007). "Surface-magnetoplasmon nonreciprocity effects in noble-metal/ferromagnetic heterostructures"

J. R. Skuza, R. A. Lukaszew, E. M. Dufresne, D. A. Walko, C. Clavero, A. Cebollada, C. N. Cionca, and R. Clarke, *Appl. Phys. Lett.* **90**, 251901 (2007). "Real time structural modification of epitaxial FePt thin films under x-ray rapid thermal annealing using undulator radiation"

K. P. Acharya, J. R. Skuza, R. A. Lukaszew, C. Liyanage, and B. Ullrich, *J. Phys.: Condens. Matter* **19**, 196221 (2007). "CdS thin films formed on flexible plastic substrates by pulsed-laser deposition"

D. P. Kumah, A. Cebollada, C. Clavero, J. M. Garcia-Martin, J. R. Skuza, R. A. Lukaszew, and R. Clarke, *J. Phys. D: Appl. Phys.* **40**, 2699 (2007). "Optimizing the planar structure of (111) Au/Co/Au trilayers"

C. Sanchez-Hanke, R. Gonzalez-Arrabal, J. E. Pioto, E. Andrzejewska, N. Gordillo, D. O. Boerma, R. Loloee, J. Skuza, and R. A. Lukaszew, *J. Appl. Phys.* **99**, 08B709 (2006). “Observation of nitrogen polarization in Fe-N using soft x-ray magnetic circular dichroism”

SELECTED CONFERENCE PRESENTATIONS

“Fabrication and real time characterization of highly anisotropic nanomagnets,”

J. R. Skuza, C. Clavero, R. A. Lukaszew, D. A. Walko, and R. Clarke,
talk presented at the 52nd Magnetism & Magnetic Materials Conference in Tampa, FL (2007).

“Fabrication and real time characterization of highly anisotropic magnetic nanostructures,”

J. R. Skuza, C. Clavero, R. A. Lukaszew, D. A. Walko, and R. Clarke,
talk presented at the AVS 54th International Symposium in Seattle, WA (2007).

“Real-time thermal annealing studies in FePt thin films and nanostructures,”

J. R. Skuza, M. N. Sestak, R. A. Lukaszew, D. A. Walko, C. Clavero, and A. Cebollada,
talk presented at the APS March Meeting in Denver, CO (2007).

“Novel annealing treatments applied to binary alloy thin films,”

J. R. Skuza, R. A. Lukaszew, E. M. Dufresne, C. Cionca, R. Clarke, and A. Cebollada,
talk presented at the AVS 53rd International Symposium in San Francisco, CA (2006).

“ $L1_0$ order in FePt thin films and x-ray rapid thermal annealing (XRTA),”

J. R. Skuza, R. A. Lukaszew, E. M. Dufresne, C. Cionca, A. Cebollada, C. Clavero, and C. Lind,
talk presented at the APS March Meeting in Baltimore, MD (2006).

HONORS

Boulder Summer School for Condensed Matter and Materials Physics participant (2008).

Leo M. Falicov Student Award Finalist for Best Presentation of Graduate Research in the Magnetic Interfaces and Nanostructures Division of the American Vacuum Society (2007).

Inducted as a member of Phi Kappa Phi, Honor Society (2007).

Recipient of the A. Jackson & Sally M. Smith Scholarship (2006).

Nominated to the American Association of Physics Teachers as an Outstanding Teaching Assistant (2005).

Recipient of the Dr. Emory C. Unnewehr Award in Physics (2004).

Recipient of the David D. Martin Scholarship in Mathematics (2003).

Inducted as a member of Kappa Mu Epsilon, Mathematical Honorary Society (2003).

GRANTS & FUNDING

Recipient of Conference Funds through the Office of Student Activities at the College of William & Mary (2007). Amount \$275.

Co-recipient of the Special Projects Program Grant for the University of Toledo/Bowling Green State University Joint Chapter of the Materials Research Society (2007). Amount \$870.

Recipient of the Dorothy M. & Earl S. Hoffman Travel Grant for the American Vacuum Society's 53rd International Symposium (2006). Amount \$300.

Recipient of the Dorothy M. & Earl S. Hoffman Travel Grant for the American Vacuum Society's 52nd International Symposium (2005). Amount \$300.

SERVICE & OUTREACH

Served on the Nominating Committee for the American Physical Society Forum on Graduate Student Affairs (2008).

Co-coordinated a symposium held at the University of Toledo, entitled "Materials Research in Thin Films and Photovoltaics," sponsored by the University of Toledo/Bowling Green State University Joint Chapter of the Materials Research Society (2007).

Treasurer for the University of Toledo/Bowling Green State University Joint Chapter of the Materials Research Society (2007).

Assisted Dr. R. A. Lukaszew in mentoring Research Experiences for Undergraduates students (2005 & 2006).

Assisted Dr. R. A. Lukaszew in organizing the Physics Summer Camp for high school students (2005 & 2006).

Assisted Dr. R. A. Lukaszew, Dr. L. J. Curtis, & Dr. X. Huang in organizing the Saturday Mornings with Science Program (2005 & 2006).

PROFESSIONAL MEMBERSHIP

Phi Kappa Phi, Honor Society, The University of Toledo Chapter (2007 - Present).

Materials Research Society (2006 - Present).

American Physical Society (2006 - Present).

American Vacuum Society (2005 - Present).

Kappa Mu Epsilon, Mathematics Honor Society, Baldwin-Wallace College Chapter (2003 - Present).