

Ali Esad Özmetin

CONTACT INFORMATION

Texas A&M University
Physics Department
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RESEARCH INTERESTS

Condensed matter physics, superconductivity, magnetism, superconducting - magnetic hybrid systems, scanning probe microscopy and superconducting magnet development.

EDUCATION

Texas A&M University, College Station, TX, USA

Ph.D. Physics Department, Materials Science and Engineering Program

- Dissertation topic: *Magnetic Imaging of Micrometer and Nanometer-size Magnetic Structures and Their Flux-Pinning Effects on Superconducting Thin Films*
- Expected graduation date: December 2008
- Advisor: Prof. Donald G. Naugle

Texas A&M University, College Station, TX, USA

M.S. Physics Department, May 2002

Boğaziçi University, Bebek, Istanbul, Turkey

B.S. Physics Department, June 1995

HONOURS AND AWARDS

Robert A. Welch Foundation, Houston, TX Welch Pre-Doctoral Fellowship, 2005-2008

Turkish Higher Education Council Doctoral Scholarship, 1997-2000

ICTP Summer School on Supersymmetry, Trieste, Italy, 1996

Izzet Baysal University Winter School on Geometry and Topology, Bolu, Turkey, 1996

PUBLICATIONS

Development and experimental characterization of micromachined electromagnetic probes for biological manipulation and stimulation applications. *Sensors and Actuators A: Physical*, Volume 144, Issue 1, 28 May 2008, Pages 213-221

Murat K. Yapici, Ali E. Ozmetin, Jun Zou and Donald G. Naugle

Strong Increase of Critical Field and Current in Magnet-Superconductor Hybrids

A.E. Ozmetin, K.D.D. Rathnayaka, D. G. Naugle and I. F. Lyuksyutov

To appear in *J. Appl. Phys.*

Strong Spatially Alternating Magnetic Field from Magnetic Nanostructures

K. Kim, A.E. Ozmetin, H. Lee, I.F. Lyuksyutov, D.G. Naugle and W. Wu

Submitted to *J. Appl. Phys.*

Micromachined Mechanical Magnet-Superconducting Hybrid Persistent Current Switch

A.E. Ozmetin, M.K. Yapici, J. Zou, I.F. Lyuksyutov, and D.G. Naugle

To appear in *Appl. Phys. Lett.*

CONFERENCE AND MEETINGS

MMM, Magnetism and Magnetic Materials, Austin, TX USA November 11-14, 2008. Strong Increase of Critical Field and Current in Magnet-Superconductor Hybrids A.E. Ozmetin, K.D.D. Rathnayaka, D. G. Naugle and I. F. Lyuksyutov

MMM, Magnetism and Magnetic Materials, Austin, TX USA November 11-14, 2008.

Strong Spatially Alternating Magnetic Field from Magnetic Nanostructures

K. Kim, A.E. Ozmetin, H. Lee, I.F. Lyuksyutov, D.G. Naugle and W. Wu

Transducers, Solid-State Sensors, Actuators and Microsystems Conference, Lyon, France June 10-14, 2007. Experimental Characterization of Micromachined Electromagnetic Probes Using Scanning Hall Probe Microscopy Murat K. Yapici, Ali E. Ozmetin, Jun Zou and Donald G. Naugle

APS March Meeting, Austin, TX USA 3-7 March 2003. Magnetic Nanowires/Superconductor Hybrids I.F. Lyuksyutov, D. G. Naugle, A.E. Ozmetin.

ASC, Applied Superconductivity, Virginia Beach, Virginia USA September 17-22, 2000. Solid Solubility Limit of Bi-Pb-Sr-Ca-Mn-O in Bi-Pb-Sr-Ca-Cu-O Superconductors. M.Yavuz, P. McIntyre, E. Ozmetin, R. Soika, T. Hartwig, D. Naugle, A. Clearfield.

PROFESSIONAL
EXPERIENCE

Texas A&M University, College Station, TX USA

Teaching Assistant

January, 1998 - present

Undergraduate courses

- Physics I
- Physics II
- Physics for Engineers

Graduate courses

- Material Science I
- Quantum Mechanics
- Electromagnetic Theory

Research Assistant

- Low Temperature Physics & Amorphous Materials Lab.
- Fermilab Supermagnet Development Team

Blinn College, Bryan, TX, USA

Physics Instructor

May, 2002 - September, 2002

Undergraduate courses

- Physics I

Gebze Advanced Technologies Institute, Gebze, Turkey

Teaching Assistant

February, 1997 - August, 1997

Graduate courses

- Statistical Mechanics & Thermal Physics
- Quantum Mechanics

Boğaziçi University, Bebek, Istanbul, Turkey

Teaching Assistant

June, 1995 - February, 1997

Undergraduate courses

- Physics 101
- Physics 102
- Physics 201

REFEREES

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Prof. Joseph Ross

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