GERGELY T. ZIMANYI

Physics Department, University of California, One Shields Ave., Davis, CA 95616
Phone: 530-400-3936; Email: zimanyi@physics.ucdavis.edu; Web: www.physics.ucdavis.edu/zimanyi

Academic Preparation

1982	B.S. Physics	Eotvos University, Budapest, Hungary
1985	Ph.D. Physics	Eotvos University, Budapest, Hungary

Professional History

1997 – Present	Professor	University of California, Davis, CA
1993 – 1997	Associate Professor	University of California, Davis, CA
1989 – 1993	Assistant Professor	University of California, Davis, CA
1988 – 1989	Postdoctoral Fellow	Rutgers University, New Brunswick, NJ
1986 – 1988	IBM Postdoctoral Fellow	SUNY at Stony Brook, NY
1986	Visiting Scientist	KFA, Julich, Germany

Selected Accomplishments

- 54 invited talks at conferences
- 83 colloquia and seminars at Universities
- 4 book-chapters
- 102 refereed publications, including 28 in Physical Review Letters
- 9 conferences organized as member of the organizing committee

Ten related publications

1. *First order reversal curve studies of permanent magnets*, T. Schrefl, T. Shoji, M. Winklhofer, M. Yano, and G. Zimanyi J. App. Phys. **111**, 07A728 (2012).

2. Effect of symmetry breaking on the optical absorption of semiconductor nanoparticles, A. Gali, E. Kaxiras, G.T. Zimanyi, and S. Meng, Phys. Rev. B 84, 035325 (2011).

3. *Vertically graded anisotropy in Co/Pd multilayers*, B.J. Kirby, J.E. Davies, K. Liu, S. Watson, G. T. Zimanyi, R. Schull, P. A. Kienzle, J.A. Borchers, Phys. Rev. B, **81,** 100405 (2010).

*4.High energy excitations in silicon nanoparticles***, A.** Gali, M. Voros, D. Rocca, G.T. Zimanyi, G. Galli, Nanoletters **9**, 3780 (2009).

5. *Direct observation of magnetic gradient in Co/Pd pressure-graded media*, B.J. Kirby, S. Watson, J.E. Davies, G. T. Zimanyi, K. Liu, R. Schull, J.A. Borchers, J. App. Phys. 105, 07C929 (2009).

6. *Density of States and Critical Behavior of the Coulomb Glass*, B. Surer, H. Katzgraber, G.T. Zimanyi, B. Allgood and G. Blatter, Phys. Rev. Lett. **102**, 067205 (2009).

7. *Thermal Stability of Graded Exchange Spring Media under the Influence of External Fields,* D. Suess, J. Fidler, G. Zimanyi, T. Schrefl, and P. Visscher, App. Phys. Lett. 92, 173111 (2008).

8. *Graded media: Optimization and energy barriers*, G.T. Zimanyi, J. App. Phys., 103, 07F543 (2008).

9. *Dislocation Glasses: Aging during relaxation and coarsening,* B. Bako, G. Groma, G. Gyorgyi, and G.T. Zimanyi, Phys. Rev. Lett. 98, 075701 (2007).

10. *Extracting the intrinsic switching field distribution in perpendicular media: A comparative analysis*, M. Winklhofer, G.T. Zimanyi, J. App. Phys. 99, 08E710 (2006).

Synergistic Activities

- Led the Solar Collaborative Advisory Board of the CA Energy Commission 2007-2008
- Led a large-scale collaborative effort of close to 50 researchers of the University of California and the Los Alamos National Laboratory as PI of a 3-year grant on vortex physics.
- Led a three-country collaboration with Toyota Motor Corp. to develop a new generation of permanent magnets for the electric motor of the Toyota Prius hybrid car.
- Consulted for law firms in a number of complex patent cases.
- Associate Editor, Philosophical Magazine, Taylor and Francis.
- Associate Editor, Advances in Condensed Matter Physics.

Honors

- Five times winner of National Problem Solving Competitions for students, Hungary
- Medal of Higher Education, Department of Education, Hungary
- Outstanding Young Scientist, Central Research Institute for Physics, Hungary
- Member, INCOR Steering Committee, Los Alamos
- "Distinguished Teacher of UC Davis" - 2011

Advisors

- Ph.D.: A. Zawadowski, Eotvos University, Budapest, Hungary
- Postdoctoral: E. Abrahams, Rutgers; S. Kivelson, Stanford; S. Chakravarty, UCLA

Collaborators in last 48 months

Los Alamos (Los Alamos, NM): *C. Reichhardt and C. Olson-Reichhardt*; UC Davis (CA): *C. Pike, K. Liu, J. Davies, R. Scalettar, M. Mikulis, N. Gronbech-Jensen, K. Verosub*; Eotvos University (Budapest, HU): *B. Bako, G. Groma, G. Gyorgyi*; Hitachi Magnetic Storage (Almaden, CA): *O. Hellwig, E. Fullerton, J. Jiang, S. Bader*; ETH (Zurich, CH): *B. Surer, G. Blatter*; Texas A&M: *H. Katzgraber*; MIT *(*Cambridge, MA): *C. Ross*; General Electric (Bangalore, India): M. *Chandran*; Drexel University (Philadelphia, PA): *G. Friedman*; Ludwig-Maximilian University (Munchen, DE): *M. Winkelhofer*; Technical University (Budapest, HU): *A. Gali, G. Zarand*; Kossuth University (Debrecen, HU): *F. Pazmandi, K. Pal*; Argonne National Laboratory (Argonne, IL): *A. Hoffmann*; UC San Diego: *I. Schuller;* Vienna Technical U. (Vienna, AT): *D. Suess, J. Fiedler;* U. St. Polten (St. Polten, AT): *T. Schrefl;* U. Alabama (Tuscaloosa, AL): *P. Vischer.* NIST (Gaithersburg, MD): *B.J. Kirby, S. Watson, R. Schull, P. A. Kienzle, J.A. Borchers*.

Postdoctoral Advisees (long term position(s) in brackets)

Helmut Katzgraber (Texam A&M University)

Charles Reichhardt (Los Alamos National Laboratory)

Cynthia Olson-Reichhardt (Los Alamos National Laboratory)

Ferenc Pazmandi (Kossuth University, Debrecen, Hungary; Sidley LLP, San Francisco)

Kyungsoon Moon (Yonsei University, Seoul, South-Korea)

Thomas Devereaux (Stanford University)

Anne van Otterlo (University of Utrecht; Siemens, The Netherlands)

Mahesh Chandran (General Electric, India)

Frank Wilhelm (partial term at UC Davis; University of Saarland, Germany)

Ph.D. Students (present long term positions)

Charles De Leone (California State U., San Marcos)

Michael Mikulis (US Army Depot, AL)

Duk Shin (Financial Industry)

Mentoring

- Extensive lecturing and active participation in minority mentoring projects: MURRPS, Pipeline Science Academy, UCD Transfer Lectures and Saturday Academy
- Involving numerous undergraduate students in the work of the CA Solar Collaborative