

Dervis C. Vural

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RESEARCH INTERESTS Low temperature physics of disordered condensed matter
Statistical mechanics of complex biological and social networks.

EDUCATION **University of Illinois at Urbana-Champaign**, Urbana-Champaign, IL, USA

Ph.D., Physics, 25 May 2011

- Thesis Topic: *Universal Sound Attenuation in Disordered Solids*
- Adviser: Professor Anthony J. Leggett
- Area of Study: Theoretical Condensed Matter

M.S., Physics, 20 October 2004

- Adviser: Professor Anthony J. Leggett
- Area of Study: Theoretical Condensed Matter Physics

Middle East Technical University, Ankara, Turkey

B.S., Physics, June 2002

- *Magna cum Laude*, With High Honors
- Undergraduate research on Carbon Nano Structures

ACADEMIC APPOINTMENTS **Postdoctoral Fellow** September 2011 to present
School of Engineering and Applied Sciences,
Harvard University
Postdoctoral Researcher July 2011 to present
Department of Physics,
University of Illinois at Urbana-Champaign
Research Assistant September 2002 to April 2011
Department of Physics,
University of Illinois at Urbana-Champaign
• Research funded by the National Science Foundation (NSF DMR 09-06921)

SAMPLE PUBLICATIONS Erkoc, S., and Vural, D.C., Molecular-Dynamics Simulations of Carbon Nano-Cage Structures: Nanoballs and Nanotoroids. *International Journal of Modern Physics*. 12(5) 685690 (2001)
Vural, D. C., Leggett A. J., Universal Acoustic Absorption in Amorphous Solids. *Journal of Non-Crystalline Solids* 357(11), 3528-3537 (2011),
Vural, D. C., When Models Interact with their Subjects: The Dynamics of Model-Aware Systems. *PLoS ONE* 6(6): e20721 (2011)
Achler, T., Vural, D. C., Amir, E. Counting Objects with Biologically Inspired Regulatory-Feedback Networks *IEEE/INNS Proceedings*, 5178976, pp. 36-40 (2009)

WORKSHOP AND CONFERENCE PRESENTATIONS **Invited Speaker**, Universal Sound Attenuation in Amorphous Solids at Low Temperatures, *Workshop on Large Fluctuations and Collective Phenomena in Disordered Materials*, Urbana May 16-19, 2011

Universal Sound Attenuation in Amorphous Solids, *APS March Meeting Vol. 56 No.1* (2011)

Dynamics of Model Aware Systems, Complex Driven Systems Conference, Blacksburg Virginia (October 1-3 2010)

TEACHING
EXPERIENCE

University of Illinois at Urbana Champaign, Urbana-Champaign, IL USA

Teaching Assistant

September 2002 to September 2010

- Courses Taught
 - PHYS 485: Atomic Physics and Quantum Theory (Spring 2002, Spring 2003, Spring 2010)
 - PHYS 211: Mechanics (Spring 2005, Spring 2007, Spring 2008)
 - PHYS 213: Thermal Physics (Spring 2006)
 - PHYS 214: Quantum Physics (Spring 2006)
 - PHYS 102: Electromagnetism and Modern Physics (Spring 2009)
- Courses Tutored
 - ME 300: Thermodynamics-II (Fall 2010)
 - NPRES 446: Principles and Applications of Radiation (Fall 2010)
 - TAM 215: Introductory Solid Mechanics (Fall 2010)
- Awarded for Excellence in Teaching (Spring 2005, Spring 2007)

TECHNICAL SKILLS Extensive experience with analytical and computational work.

Programming Languages: C, C++, Mathematica

Computer Applications: \TeX (\LaTeX , \BibTeX), most common productivity packages for Windows and Linux platforms.

SYNERGISTIC
ACTIVITIES

- Demonstrated physics experiments to primary, secondary and high school students in the underdeveloped regions of Turkey with the organization ILKYAR (1998 to 2006).
- Graduated from the Conservatory of Bilkent University, Turkey. Number of awards from compositions and concerts involving algorithmic composing and wave design. Visual and acoustic experiments available at www.dcvural.info

COLLABORATORS
AND OTHER
AFFILIATIONS

A. J. Leggett (Thesis Advisor and Postdoctoral Sponsor, University of Illinois),
L. Mahadevan (Postdoctoral Sponsor, Harvard University),
P. Shukla (Collaborator, Indian Institute of Technology Kharagpur).