

## PANOS OIKONOMOU

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### EDUCATION

- 2003-present**      **University of Chicago**  
Ph.D. Candidate, Physics Department
- 2002-2003**      **University of Chicago**  
Master of Science, Physics Department
- 1996-2001**      **National Technical University of Athens**  
Master of Science, Dept. of Electrical and Computer Engineering

### RESEARCH EXPERIENCE

- 2003-present**      **Laboratory of Philippe Cluzel, University of Chicago**  
Research Assistant, Biophysics,  
Studying network dynamics and evolution of bacterial chemotaxis.  
Explored the effects of scale-free topology on network evolution.
- 2003-present**      **Group of Leo Kadanoff, University of Chicago**  
Research Assistant, Statistical Physics,  
Studying stochastic growth processes in two dimensions.  
Developed analytic and computational methods to study Stochastic  
Loewner Evolution driven by Lévy processes.
- 2002-2003**      **Laboratory of Tom Rosenbaum, University of Chicago**  
Research Assistant, Condensed Matter Experiment,  
Studied the Persistent Photoconductivity of  $\text{YH}_x$ .
- 2001-2002**      **CERN and HEP Lab at Nat. Tech. Univ. of Athens**  
Research Assistant and CERN Summer student, ATLAS group of T.  
Alexopoulos, Y. Tsipolitis and H. Burckhart,  
Designed and installed a setup for the temperature and pressure  
monitoring for the Control System of the Muon Drift Tubes.
- 2000-2001**      **National Technical University of Athens**  
Diploma thesis on "Soliton Propagation in Erbium Doped Fiber  
Amplifiers in the framework of the Quintic Complex Ginzburg-Landau  
Equation" under the supervision of K. Hizanidis.

## PUBLICATIONS

“Global properties of Stochastic Loewner evolution driven by Lévy processes”, **P. Oikonomou**, I. Rushkin, I.A.Gruzberg and L.P. Kadanoff; *arXiv:0710.2680v1*, *J. Stat. Mech.* (submitted Oct. 2007).

“Effects of topology on network evolution”, **P. Oikonomou**, P. Cluzel, *Nature Physics* 2, pp532 - 536 (2006).

“Stochastic Loewner evolution driven by Lévy processes”, I. Rushkin, **P. Oikonomou**, L.P. Kadanoff and I.A.Gruzberg; *J. Stat. Mech.* P01001 (2006).

“The Electron Glass in a Switchable Mirror: Relaxation, Aging and Universality”, M. Lee, **P. Oikonomou**, P. Segalova, T.F. Rosenbaum, A.F.Th. Hoekstra, P.B. Littlewood; *J. Phys.: Condens. Matter* 17 (2005) L439-L444.

“A Prototype Detector Control System Setup at the H8 Muon Test Beam 2001”, T. Alexopoulos, R. Avramidou, M. Dris, E.N. Gazis, S. Maltezos, **P. Oikonomou**, P.S. Savva, G. Tsipolitis; CERN, *ATLAS Notes Detectors and Experimental Techniques*, *ATL-MUON-2004-027* (2004).

## MANUSCRIPTS IN PREPARATION

“Bacterial chemotaxis: Exploring diversity and design principles through computer simulated evolution”, **P. Oikonomou**, P. Cluzel.

## PRESENTATIONS AND TALKS

“Evolvable by design”, **P. Oikonomou**, P.Cluzel, Contributed Talk, NetSci 07, Queens NYC (2007).

“Topology governs network evolution”, **P. Oikonomou**, P.Cluzel, Contributed Talk, Dynamics Days Europe, Crete (2006).

“Topology of Dynamics in the Half Plane - Schramm Loewner Evolutions”, **P. Oikonomou**, I. Rushkin, L.P. Kadanoff, I. Gruzberg; Poster, Dynamics Days, Long Beach (2005).

## FELLOWSHIPS & GRANTS

**2002-2004** McCormick Graduate Research Fellowship, University of Chicago.

**2003** Sachs Graduate Summer Research Fellowship, University of Chicago.

**1996-1997** Grant from the Institution for State Grants, Undergraduate, Greece.

## EDUCATIONAL EXPERIENCE

- 2005-present**      **University of Chicago, Museum of Science and Industry, SciTech Hands-on Museum**  
MSCOPE, Program Director  
Coordinate University of Chicago outreach to science museums. Conduct training of interns on museum presentations of science, exhibit design and scientific demonstrations. Develop the program's curriculum, events and workshops.
- Summer 2007**      Mentored two REU summer students to develop computer simulations of force networks appearing in packed two-dimensional hard disks.
- March 2006**      Organized the University of Chicago participation for the event "Physics Today for a better tomorrow" of the American Physical Society for Congressional Representatives and their Staff in the Rayburn House Office Building near the Capitol
- 2004-2005**      **University of Chicago, SciTech Hands-on Museum**  
SCOPE, Intern, Material Science  
Designed exhibits and educational programs on basic science and university outreach.

## LANGUAGES

Fluent in Greek and English  
Basic German and Spanish

## REFERENCES

Prof. Leo Kadanoff,  
The James Franck Institute  
University of Chicago, CIS E219  
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Prof. Thomas F. Rosenbaum,  
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