

## OVIDIU LIPAN

**Medical College of Georgia**  
**Center for Biotechnology and Genomic Medicine**  
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2003-present                    **Assistant professor, Computational Biology,**  
**Medical College of Georgia**  
**Center for Biotechnology and Genomic Medicine**

### EDUCATION:

June 1998                    **University of Chicago, Chicago, IL.**  
**Ph.D.** in Theoretical Physics.  
Dissertation: "*Classical and Quantum Discrete Time Integrable Systems*"

June 1992                    **University of Timisoara, Timisoara, Romania.**  
**M.S.** in Theoretical Physics.

June 1991                    **University of Timisoara, Timisoara, Romania.**  
**B.S.** in Physics.

June 1985                    **"Traian Vuia" Polytechnic University, Timisoara, Romania**  
**M.S.** Electrical Engineering

### POSTDOCTORAL EXPERIENCE:

2000 – 2003                    **Harvard University, Cambridge, MA.**  
**Postdoctoral Fellow** in Computational Biology in the group of Dr. Wing Wong.

1998 – 2000                    **California Institute of Technology, Pasadena, CA.**  
**Sherman Fairchild Postdoctoral Fellow in Theoretical Physics.**

### TEACHING EXPERIENCE:

2003-present                    **Medical College of Georgia, Augusta, GA.** Taught computational biology to first year graduate students.

2000 – 2003                    **Harvard University, Boston, MA.**  
Teaching computational biology to fellow researchers from the Life Sciences Department.

1999 – 2000                    **California Institute of Technology, Pasadena, CA.**  
**Sherman Fairchild Postdoctoral Fellow** in Theoretical Physics.  
**Instructor:** Taught Physics for Freshmen. Lectured and administrated grades. Helped determine final grades.

1993 – 1998                    **University of Chicago, Chicago, IL.**  
**Teaching Assistant**

- 1992 – 1993 **University of Timisoara**, Timisoara, Romania.  
**Instructor:** Taught the course “*Applications of Differential Geometry in Physics.*” Formulated course structure and requirements, lectured and administered all grades.
- 1989 – 1992 “**Traian Vuia**” **Polytechnic University**, Timisoara, Romania.  
**Instructor:** Taught physics labs and seminars for undergraduate electrical engineers.

**AWARDS:**

- 1998 – 2000 **Sherman Fairchild Postdoctoral Fellow**, Division of Physics, Mathematics and Astronomy, California Institute of Technology.
- 1997 **Harper Fellow**, University of Chicago, dissertation support for outstanding advanced graduate student.
- 1990 – 1992 **Special Merit Scholarship**, University of Timisoara.

**CONFERENCES and SEMINARS:**

- Poster **3<sup>rd</sup> International Conference of Pathways, Networks and Systems: Theory and Experiments**, Greece 2005
- Invited Speaker **Texas A&M University**  
 40th Anniversary Conference  
 Department of Statistics, 2003
- Invited Speaker **Notre Dame University**,  
 Physics Department ,2002
- Invited Speaker **Whitehead Institute**  
 Center for Genome Research
- Presentation **ISMB 2002**, Edmonton, Canada

**SUBMITTED PAPERS:**

S. Achimescu, O. Lipan:”*Signal propagation through nonlinear stochastic Genetic regulatory network*”, **IEE Systems Biology**.

**PUBLISHED PAPERS:**

O.Lipan, W.H.Wong, “*The use of oscillatory signals in the study of genetic networks*” submitted to **Proc. Natl. Acad. Sci.**, 2005 May 17;102(20):7063-8.

O.Lipan, F.Storch, S.Zong, M.C. Kao, C.J. Weitz, W.H.Wong, “*GoSurfer: A graphical interactive tool for comparative analysis of large gene sets in Gene Ontology space.*” **Appl. Bioinformatics**, 2005;3(4):261-4

C. Sauvageot ,P. Dahia, O. Lipan, , J.Alberta, C. Stiles “*Distinct temporal genetic signatures of neurogenic and gliogenic cues in cortical stem cell cultures*” **J. Neurobiology**, Jan;62(1):121-33

F. Storch, O. Lipan, I. Leykin, N. Viswanathan, F.C. Davis, W.H. Wong, C.J. Weitz, “*Extensive and Divergent Circadian Gene Expression in Liver and Heart*”, **Nature**, May 2002

O. Lipan, C. Rasinariu, “*Baxter T-Q Equation for Shape Invariant Potentials. The Finite-Gap Potentials Case,*” **Journal of Mathematical Physics**, Vol. 43, Issue 2, 847-865

O. Lipan, "Baxter Operator for the Hofstadter-Harper Hamiltonians," *Journal of Nuclear Physics B* 604 [FS] (2001) 603-615.

O. Lipan, "Bandwidths Statistics from the Eigenvalue Moments for Harper-Hofstadter Problem," *Journal of Physics A: Math. Gen.* (2000) V.33, N.39, 6875-6888.

O. Lipan, P.B. Wiegmann, A. Zabrodin, "Higher Hirota Equations for Quantum Transfer Matrices" *Mod. Phys. Lett. A*12, No 19, 1369-1378 (1997)

Krichever, O. Lipan, P.B. Wiegmann, A. Zabrodin, "Quantum Integrable Systems and Elliptic Solutions of Classical Discrete Nonlinear Equations," *Communications in Mathematical Physics* 188, (1997), 267-304.

**SUBMITTED GRANT APPLICATIONS:**

1. Ovidiu Lipan (PI) Wing H. Wong (CoPI)  
Signal propagation in nonlinear genetic networks  
07/01/06- 07/01/10  
NSF
2. Ovidiu Lipan (PI) Jin-Xiong She (CoPI)  
Diabetes biomarker from protein mass spectrometry  
04/01/06-03/31/10  
NIH

**CURRENT STUDENTS and POSTDOCTORAL FELLOWS:**

Mandy Green  
Sever Achimescu

**STATUS:** U.S.A. permanent resident