

## **LEONID A. BUNIMOVICH**

School of Mathematics

Georgia Institute of Technology, Atlanta GA 30332

### **EDUCATION:**

Doctor of Sciences, Inst. for Theor. Physics, Academy of Sciences of UkSSR, 1986

Ph.D., Moscow University, 1973

M.S., Moscow University, 1969

B.S., Moscow University, 1967

### **PROFESSIONAL EXPERIENCE:**

1998 - Present Regents' Professor, School of Mathematics, Georgia Tech

1996 - Present Director, Southeast Applied Analysis Center

1991 - 1998 Professor, School of Mathematics, Georgia Tech

1997 - Present Adjunct Professor, School of Biology, Georgia Tech

### **HONORS:**

1999 - Fellow, Institute of Physics

2000 - Outstanding Faculty Research Author Award, GA Tech

2002 - Humboldt Prize

### **SYNERGISTIC ACTIVITIES:**

**Editorial Boards:** Nonlinearity, Chaos, Discrete and Continuous Dynamical Systems, SIAM Journal of Applied Mathematics, Book Series "Frontiers of Mathematics"

### **GRADUATE AND POSTDOCTORAL ADVISING** (in past 5 years):

A. Berger, M. Demers, G. Del Magno, M. Khlabytova, D. Kreslavsky, M. Porter

### **CURRENT RESEARCH SUPPORT:**

National Science Foundation

### **OTHER COLLABORATORS** (in past 48 months):

M. Blank (Inst. for Information Transmission Problems, Moscow, Russia), C. Boldrighini (Univ. of Rome I, Italy), G. Cosimi (Univ. of Camerino, Italy), A. Frigio (Univ. of Camerino, Italy), T. Hill (Georgia Tech), A. Pellegrinotti (Univ. of Rome III, Italy), N. Stoop (ETH, Zürich), R. Stoop (Inst. of Neuroinformatics, Zürich), K. Schindler (Inst. of Neuroinformatics, Zürich)

### **TITLES OF DISSERTATIONS DIRECTED:**

"Chaotic high-dimensional nowhere dispersing billiards," J. Rehacek

"The peak-crossing bifurcation in Lattice Dynamical Systems," S. Venkatagiri

"Dynamics of billiards," G. Del Magno

"Dynamical and statistical properties of Lorentz Lattice Gases," M. Khlabytova

"Lorentz lattice gases on graphs," D. Kreslavsky

#### SELECTED PUBLICATIONS:

1. L.A. Bunimovich and Ya.G. Sinai, "Space-Time Chaos in Coupled Map Lattices," *Nonlinearity* **1**, 491 (1989)
2. L.A. Bunimovich and J. Rehacek, "How High-Dimensional Stadia Look like?," *Comm. Math. Phys.* **197**, 277 (1998).
3. L.A. Bunimovich, "Walks in Rigid Environments," *Physica A* **279**, 169 (2000).
4. L.A. Bunimovich, "Lattice Dynamical Systems," in *From Finite to Infinite Dynamical Systems*, J.C. Robinson and P.A. Glendinning, eds., p. 59 (Kluwer, London 2001).
5. L. A. Bunimovich and D. Kreslavsky, "Lorentz Gas Cellular Automata on Graphs," *Theoretical Computer Science* **306**, 195 (2003).