

## **KURT WIESENFELD**

School of Physics

Georgia Institute of Technology, Atlanta GA 30332

### **Born:**

February 12, 1958, New York, NY

### **EDUCATION:**

Ph.D. in Physics, UC Berkeley, 1985 (thesis advisor: E. Knobloch)

M.A. in Physics, UC Berkeley, 1982

B.S. in Physics, M.I.T., 1979

### **PROFESSIONAL EXPERIENCE:**

1997–Present Professor of Physics, Georgia Institute of Technology

1992–1997 Associate Professor of Physics, Georgia Institute of Technology

1987–1992 Assistant Professor of Physics, Georgia Institute of Technology

1985–1987 Research Scientist, Physics Dept., Brookhaven National Lab

1984–1985 Lecturer and Researcher, Physics Board of Studies, UC Santa Cruz

### **HONORS:**

Elected Fellow of the American Physical Society (2001)

Elected, Executive Committee, Division of Biological Physics, American Physical Society (1999)

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

B. Breen, M. Dhamala, J. Hasty, T. Heath, S. Peles

### **CURRENT RESEARCH SUPPORT:**

Office of Naval Research, National Institute of Mental Health (through subcontract with Emory University)

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

F. Jaramillo, A. Bulsara, M. Inchiosa, P. Hanggi, L. Gammaitoni, N.F. Pedersen, G. Filatrella, J. Lindner, H. Rockwood, M. Schatz, J. Rogers, G. Berns, G. Pagnoni, M. Dhamala,

### **SELECTED PUBLICATIONS:**

1. “Self organized criticality.” (with P. Bak and C. Tang), *Phys. Rev. A* **38**, 364 (1988).
2. “Stochastic resonance and the benefits of noise: from ice ages to crayfish and SQUIDS,” (with F. Moss), *Nature* **373**, 33 (1995).
3. “Frequency locking in Josephson arrays: connection with the Kuramoto model,” (with S. Strogatz and P. Colet), *Phys. Rev. E* **57**, 1563 (1998).
4. “Mechanoelectrical transduction assisted by Brownian motion: a role for noise in the auditory system,” (with F. Jaramillo), *Nature Neuroscience* **1**, 384 (1998).
5. “Physiological Noise Enhances Mechanoelectrical Transduction in Hair Cells,” (with F. Jaramilla,) *Chaos, Solutions and Fractals* **11**, 1869-74 (2000)