

Meet the Editors

VLADIMIR PRIVMAN



Vladimir Privman holds D.Sc. degree in Physics (1982) from Technion – Israel Institute of Technology. His postdoctoral training was at Cornell University (1982-1984) and California Institute of Technology (1984-1985). He started work as a faculty member at Clarkson University in 1985. He (co) authored over 250 research papers, 3 books, and over 20 major reviews, received honors and recognitions, was a Royal Society Guest Research Fellow during his sabbatical at University of Oxford (1991-1992), and served a term as the Chair of the Physics Department at Clarkson University (1996-1999). He is a Fellow of American Physical Society and holds the Robert A. Plane Endowed Chair professorship.

Dr. Privman's research interests span broad areas of nanotechnology and information technology, the latter including unconventional information and signal processing, specifically, biomolecular computing, biosensing, spintronics, and quantum computing. His results encompassing novel approaches to complex unconventional-computation/signal-processing systems have ranged from quantum computing design, [1, 2] and evaluation of qubit and qubit-register decoherence, [3, 4] to spintronics transport, [5, 6] and to biomolecular computing and biosensing, including network [7, 8] and component design [9, 10] with emphasis on control of noise for scalability. Dr. Privman's publications are downloadable at <http://www.clarkson.edu/Privman>.

SELECTED PUBLICATIONS

- [1] Quantum Computation in Quantum-Hall Systems, V. Privman, I. D. Vagner and G. Kventsel, *Phys. Lett. A* **239**, 141-146 (1998).
- [2] Quantum Computing with Spin Qubits in Semiconductor Structures, V. Privman, D. Mozyrsky and I. D. Vagner, *Computer Phys. Commun.* **146**, 331-338 (2002).
- [3] Initial Decoherence of Open Quantum Systems, V. Privman, *J. Stat. Phys.* **110**, 957-970 (2003).
- [4] Additivity of Decoherence Measures for Multiqubit Quantum Systems, L. Fedichkin, A. Fedorov and V. Privman, *Phys. Lett. A* **328**, 87-93 (2004).
- [5] Monte Carlo Simulation of Spin-Polarized Transport, M. Shen, S. Saikin, M.-C. Cheng and V. Privman, *Lect. Notes Comput. Sci.* **2668-II**, 881-891 (2003).
- [6] Modeling for Semiconductor Spintronics, S. Saikin, Y. V. Pershin and V. Privman, *IEE Proc. Circuits Devices Syst.* **152**, 366-376 (2005).
- [7] Optimization of Enzymatic Biochemical Logic for Noise Reduction and Scalability: How Many Biocomputing Gates Can Be Interconnected in a Circuit? V. Privman, G. Strack, D. Solenov, M. Pita and E. Katz, *J. Phys. Chem. B* **112**, 11777-11784 (2008).
- [8] Control of Noise in Chemical and Biochemical Information Processing, V. Privman, *Israel J. Chem.* **51**, 118-131 (2011).
- [9] Kinetic Model for a Threshold Filter in an Enzymatic System for Bioanalytical and Biocomputing Applications, V. Privman, S. Domanskyi, S. Mailloux, Y. Holade and E. Katz, *J. Phys. Chem. B* **118**, 12435-12443 (2014).
- [10] Modeling and Modifying Response of Biochemical Processes for Biocomputing and Biosensing Signal Processing, S. Domanskyi and V. Privman, to appear as a chapter in *Advances in Unconventional Computing*, edited by A. Adamatzky (Springer Verlag, New York, 2016).