

Biographical Sketch: Ira B. Schwartz, Applied Mathematician

Position: US Naval Research Laboratory
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Research and Professional Experience

Trained and educated as both an applied mathematician (University of Maryland, Ph.D.) and physicist (University of Hartford, BS), Dr. Schwartz and his collaborators, post doctoral fellows and students have impacted a diverse array of applications in the field of nonlinear science. Dr. Schwartz has over 120 refereed publications in areas such as physics, mathematics, biology and chemistry. The main underlying theme in the applications field has been the mathematical and numerical techniques of nonlinear dynamics and chaos, and most recently, nonlinear stochastic analysis and control of cooperative and networked dynamical systems. Dr. Schwartz has been written up several times in Science and Scientific American magazines, has given invited and plenary talks at international applied mathematics, physics, and engineering conferences, and he is one of the founding organizers of the biennial SIAM conference on Dynamical Systems. Several of his discoveries developed in nonlinear science are currently patented, including collaborative robots, synchronized coupled lasers, and chaos tracking and control for which he was awarded the US Navy Tech Transfer award. Dr. Schwartz is an elected fellow of the American Physical Society and the current vice-chair of the SIAM Dynamical Systems Group.