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Announcement: Focus Issue on "Nonlinear and Stochastic Physics in Biology"

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Chaos announces a Focus Issue on Nonlinear and Stochastic Physics in Biology to be published in the 2011 December issue. In the last two decades or so, physicists have set out with much excitement to conquer the last big frontier—life. The physics of life is complex, nonlinear and, in many cases, stochastic. Concepts of nonlinear dynamics and stochastic processes have been transformational for the study and understanding of biological systems on all organizational scales, from single molecules to swarms. This Focus Issue provides an overview of current research at the interface of nonlinear and stochastic physics and biology. This volume pays tribute to our friend Frank E. Moss, whose work in this area was profoundly influential and who will be missed dearly. A tentative list of topics includes stochastic resonance, coherence resonance, stochastic synchronization, and their applications in neurobiology, psychology and medicine, stochastic processes in systems biology, noise effects in pattern forming systems in biology and chemistry, and the physics of self-propelled organisms and swarms.