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   Sommario/riassunto In recent research on natural processes, mathematical modeling has become a very useful tool. It is often the case that, in fields such as economics and biology, a temporal lag between cause and effect must often be taken into consideration. In modeling, a natural and practical implementation of this phenomenon is through the use of distributed delays. This is because they illustrate the situation where temporal lags arise in certain ranges of values for certain related probability distributions, taking into account the variables' entire history of behavior. Another mathematical tool that allows for the memory and inherited properties of systems to be encompassed in a model is the replacement of integer-order derivatives with fractional derivatives. To address realistic conditions, stochastic perturbation framed by a stochastic differential delay system can be used to explain the ambiguity about the context in which the system operates. The present book comprises all the 16 articles accepted and published in the Special Issue "Advances in Differential Dynamical Systems with Applications to Economics and Biology" of the MDPI journal Mathematics, with focuses on the dynamical analysis of mathematical models, arising from economy and biology, and innovative developments in mathematical techniques for their applications. We expect that the international scientific community will find this

collection of research papers influential and that they will spur additional investigations on diverse applications with respect to dynamical systems in all scientific areas.