DESCRIPTION

Within the field of modeling complex objects in natural sciences, which considers systems that consist of a large number of interacting parts, a good tool for analyzing and fitting models is the theory of random evolutionary systems, considering their asymptotic properties and large deviations. In Random Evolutionary Systems we consider these systems in terms of the operators that appear in the schemes of their diffusion and the Poisson approximation. Such an approach allows us to obtain a number of limit theorems and asymptotic expansions of processes that model complex stochastic systems, both those that are autonomous and those dependent on an external random environment. In this case, various possibilities of scaling processes and their time parameters are used to obtain different limit results.

ABOUT THE AUTHOR

Dmitri Koroliouk is a Doctor of Sciences (Hab.), leading researcher at the Institute of Telecommunications and Global Information Space of the National Academy of Sciences of Ukraine, and Professor at the National Technical University of Ukraine, "Igor Sikorsky Kyiv Polytechnic Institute". He is the author of 80 scientific publications and also holds 10 European patents for industrial inventions.
Igor Samoilenko is a Doctor of Sciences (Hab.) and Associate Professor at the Faculty of Computer Science and Cybernetics at the Taras Shevchenko National University of Kyiv, Ukraine. He is the author of 60 scientific publications.

To purchase this product, please visit https://www.wiley.com/en-ie/9781119851240