

Computer simulation is the process of mathematical modelling, performed on a computer, which is designed to predict the behaviour of, or the outcome of, a real-world or physical system. The reliability of some mathematical models can be determined by comparing their results to the real-world outcomes they aim to predict. Computer simulations have become a useful tool for the mathematical modeling of many natural systems in physics (computational physics), astrophysics, climatology, chemistry, biology and manufacturing, as well as human systems in economics, psychology, social science, health care and engineering. Simulation of a system is represented as the running of the system's model. It can be used to explore and gain new insights into new technology and to estimate the performance of systems too complex for analytical solutions.

In the present book, fifteen typical literatures about Computer simulation published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on Computer simulation. We hope this book can demonstrate advances in Computer simulation as well as give references to the researchers, students and other related people.¹

The Editorial Board of Academic Archives
Scientific Research Publishing
Sep. 10, 2021

¹ https://en.wikipedia.org/wiki/Computer_simulation