Elements of Computational Systems Biology

Groundbreaking, long-ranging research in this emergent field that enables solutions to complex biological problems

Computational systems biology is an emerging discipline that is evolving quickly due to recent advances in biology such as genome sequencing, high-throughput technologies, and the recent development of sophisticated computational methodologies.

Here’s a comprehensive reference covering the computational frameworks and techniques needed to help research scientists and professionals in computer science, biology, chemistry, pharmaceutical science, and physics solve complex biological problems. Written by leading experts in the field, this practical resource gives detailed descriptions of core subjects, including biological network modeling, analysis, and inference; presents a measured introduction to foundational topics like genomics; and describes state-of-the-art software tools for systems biology.

It’s intended for academic/industry researchers and scientists in computer science, biology, mathematics, chemistry, physics, biotechnology, and pharmaceutical science. It is also accessible to undergraduate and graduate students in machine learning, data mining, bioinformatics, computational biology, and systems biology courses.

Publication Year: 2010
Edition: 1st
Author/Editor: Lodhi, Huma M.; Muggleton, Stephen H.
Publisher: Wiley
ISBN: 978-0-470-18093-8
Platform: Ovid
Product Type: Book
Speciality: Bioinformatics
Language: English
Pages: 412
Illustrations: 0