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## Springer Handbook of Bio-/Neuroinformatics

This **Springer Handbook of Bio-/Neuroinformatics** is the first published book in one volume that explains together the basics and the state-of-the-art of two major science disciplines in their interaction and mutual relationship, namely: bioinformatics and neuroinformatics. The text is organized in three groups of parts: foundations, bioinformatics and neuroinformatics. Each group consists of three parts: introduction to the subject area; presentation of methods and systems and advanced science and technology. Informatics is the science of information. Part A covers general informatics methods and techniques. They include methods of statistical learning, data mining, machine learning, knowledge engineering, neural networks, evolutionary computation, chaos theory, quantum computation, and many more. These methods have been widely used in bioinformatics and neuroinformatics studies and technological developments.

**Bioinformatics** is the area of science that is concerned with the information processes in biology and the development and applications of methods, tools and systems for storing and processing of biological information in order to facilitate new knowledge discovery.

**Neuroinformatics** is concerned with the information processes in the brain and the nervous system and consequently with the development of methods and system for storing and processing such information, ultimately leading to a better understanding, modeling and curing the brain and the nervous system.

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