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Nota di contenuto	Part A (Ed. Heike Sichtig) Understanding Information Processes in Biological Systems -- Part B (Ed.: Chris Brown) Molecular Biology, Genome and Proteome Informatics -- Part C (Eds: Irwin King, Kaizhu Huang, Heike Sichtig) Machine Learning Methods -- Part D (Eds: Chris Brown, Heike .Sichtig, Irwin King, Kaizhu Huang, Francesco Masulli) Modeling Regulatory Networks: The Systems Biology Approach -- Part E (Ed.: Francesco Masulli) Bioinformatics Databases and Ontologies -- Part F (Eds: Francesco Masulli, Danilo Mandic) Bioinformatics in Medicine, Health and Ecology -- Part G (Ed.: Heike Sichtig) Understanding Information Processes in the Brain and the Nervous System -- Part H (Ed.: Danilo Mandic) Advanced Signal Processing Methods for Brain Signal Analysis and Modeling -- Part I (Eds: Lubica Benuskova, Heike Sichtig) Information Modeling of Perception, Sensation and Cognition -- Part J (Eds: Shiro Usui, Raphael Ritz) Neuroinformatics Databases and Ontologies -- Part K (Eds: Lubica Benuskova, Francesco Masulli) Information Modeling for Brain Diseases -- Part L (Eds: Lubica Benuskova, Danilo Mandic) Nature Inspired Integrated Information Technologies Glossary Appendix A Methods of Information Science Appendix B The Human Genome Appendix C Brain Genes and Diseases Acknowledgements -- About the Authors -- Subject Index.
Sommario/riassunto	The Springer Handbook of Bio-/Neuro-Informatics 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: information sciences, bioinformatics and neuroinformatics. Bioinformatics is the area of science which 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 thus facilitating new knowledge discovery. Neuroinformatics is the area of science which 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 thus facilitating new knowledge discovery. The text contains 62 chapters organized in 12 parts, 6 of them covering topics from information science and bioinformatics, and 6 cover topics from information science and neuroinformatics. Each chapter consists of three main sections: introduction to the subject area, presentation of methods and advanced and future developments. The Springer Handbook of Bio-/Neuroinformatics can be used as both a textbook and as a reference for postgraduate study and advanced research in these areas. The target audience includes students, scientists, and practitioners from the areas of information, biological and neurosciences. With Forewords by Shun-ichi Amari of the Brain Science Institute, RIKEN, Saitama and Karlheinz Meier of the University of Heidelberg, Kirchhoff-Institute of Physics and Co-Director of the Human Brain Project.