1.	Record Nr.	UNINA9910298290103321
	Titolo	Advance in Structural Bioinformatics / / edited by Dongqing Wei, Qin Xu, Tangzhen Zhao, Hao Dai
	Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2015
	ISBN	94-017-9245-3
	Edizione	[1st ed. 2015.]
	Descrizione fisica	1 online resource (380 p.)
	Collana	Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 827
	Disciplina	572
	Soggetti	Bioinformatics Molecular biology Enzymology Chemistry, Physical and theoretical Computational Biology/Bioinformatics Molecular Medicine Theoretical and Computational Chemistry
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references.
	Nota di contenuto	Introduction to Structural Bioinformatics -- Modeling and Structure Determination -- The Structure Prediction of Biological Macromolecules -- The Biological Macromolecules in Computational Biology -- The Functional Analysis of Biological Macromolecules -- The Structure-Based Drug Design.
	Sommario/riassunto	This text examines in detail mathematical and physical modeling, computational methods and systems for obtaining and analyzing biological structures, using pioneering research cases as examples. As such, it emphasizes programming and problem-solving skills. It provides information on structure bioinformatics at various levels, with individual chapters covering introductory to advanced aspects, from fundamental methods and guidelines on acquiring and analyzing genomics and proteomics sequences, the structures of protein, DNA and RNA, to the basics of physical simulations and methods for conformation searches. This book will be of immense value to researchers and students in the fields of bioinformatics, computational biology and chemistry. Dr. Dongqing Wei is a Professor at the

Department of Bioinformatics and Biostatistics, College of Life Science and Biotechnology, Shanghai Jiaotong University, Shanghai, China. His research interest is in the general area of structural bioinformatics.