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Titolo	Computational Methods to Study the Structure and Dynamics of Biomolecules and Biomolecular Processes : From Bioinformatics to Molecular Quantum Mechanics / / edited by Adam Liwo
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ISBN	3-319-95843-7
Edizione	[2nd ed. 2019.]
Descrizione fisica	1 online resource (850 pages)
Collana	Springer Series on Bio- and Neurosystems, , 2520-8535 ; ; 8
Disciplina	572.330113
Soggetti	Computational intelligence Bioinformatics Proteins Chemistry, Physical and theoretical Statistical physics Computational Intelligence Computational Biology/Bioinformatics Protein Science Theoretical and Computational Chemistry Statistical Physics and Dynamical Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Molecular simulations: methodology -- Molecular simulations: applications -- Use of structural database or experimental information in modeling protein structure and dynamics -- Applications of molecular quantum mechanics.
Sommario/riassunto	This book provides a comprehensive overview of modern computer-based techniques for analyzing the structure, properties and dynamics of biomolecules and biomolecular processes. It is organized in four main parts; the first one deals with methodology of molecular simulations; the second one with applications of molecular simulations; the third one introduces bioinformatics methods and the use of experimental information in molecular simulations; the last part reports

on selected applications of molecular quantum mechanics. This second edition has been thoroughly revised and updated to include the latest progresses made in the respective field of research.