



Lecture Notes on Computational Structural Biology

While the field of computational structural biology or structural bioinformatics is rapidly developing, there are few books with a relatively complete coverage of such diverse research subjects studied in the field as X-ray crystallography computing, NMR structure determination, potential energy minimization, dynamics simulation, and knowledge-based modeling. This book helps fill the gap by providing such a survey on all the related subjects. Comprising a collection of lecture notes for a computational structural biology course for the Program on Bioinformatics and Computational Biology at Iowa State University, the book is in essence a comprehensive summary of computational structural biology based on the author's own extensive research experience, and a review of the subject from the perspective of a computer scientist or applied mathematician. Readers will gain a deeper appreciation of the biological importance and mathematical novelty of the research in the field.

World Scientific

www.worldscientific.com

6403 hc

ISBN-13 978-961-270-589-1
ISBN-10 961-270-589-9



9 789812 705891