

Topology in Molecular Biology

The book presents a class of new results in molecular biology for which topological methods and ideas are important. These include: the large-scale conformation properties of DNA; computational methods (Monte Carlo) allowing the simulation of large-scale properties of DNA; the tangle model of DNA recombination and other applications of Knot theory; dynamics of supercoiled DNA and biocatalytic properties of DNA; the structure of proteins; and other very recent problems in molecular biology. The text also provides a short course of modern topology intended for the broad audience of biologists and physicists. The authors are renowned specialists in their fields and some of the new results presented here are documented for the first time in monographic form.

ISSN 1618-7210

ISBN 3-540-23407-1



9 783540 234074

 springer.com