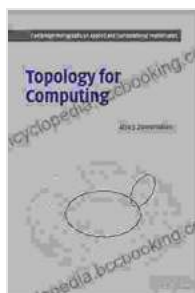


Topology for Computing: A Comprehensive Guide to the Mathematical Foundation of Computer Science

Topology is a branch of mathematics that deals with the study of the properties of geometric objects that are invariant under continuous deformations. In other words, topology is the study of shapes and how they can be changed without tearing or gluing. This makes topology a fundamental tool for computer science, where we are often interested in understanding the properties of complex objects, such as graphs, networks, and databases.



Topology for Computing (Cambridge Monographs on Applied and Computational Mathematics Book 16)

by Afra J. Zomorodian

★★★★☆ 4.8 out of 5

Language : English

File size : 12267 KB

Print length : 243 pages



Topology for Computing: A Comprehensive Guide to the Mathematical Foundation of Computer Science provides a comprehensive to topology, with a focus on its applications to computer science. The book covers a wide range of topics, including point-set topology, algebraic topology, and geometric topology. It also includes many exercises and examples to help readers understand the material.

Point-Set Topology

Point-set topology is the study of the properties of sets of points. It is the most basic branch of topology, and it provides the foundation for all other branches. Point-set topology includes topics such as open sets, closed sets, continuity, and connectedness.

Algebraic Topology

Algebraic topology is the study of the properties of topological spaces using algebraic techniques. It is a more advanced branch of topology, but it has many applications to computer science, such as in the study of homology and cohomology.

Geometric Topology

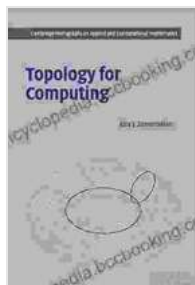
Geometric topology is the study of the properties of topological spaces using geometric techniques. It is a more advanced branch of topology, but it has many applications to computer science, such as in the study of manifolds and knots.

Exercises and Examples

Topology for Computing: A Comprehensive Guide to the Mathematical Foundation of Computer Science includes many exercises and examples to help readers understand the material. The exercises are designed to test readers' understanding of the concepts presented in the book, and the examples are designed to illustrate how topology can be applied to computer science.

Topology for Computing: A Comprehensive Guide to the Mathematical Foundation of Computer Science is a valuable resource for anyone who

wants to learn about topology and its applications to computer science. The book is well-written and easy to follow, and it includes many exercises and examples to help readers understand the material.



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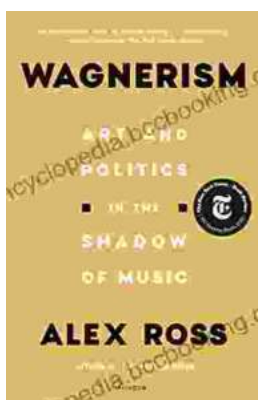
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