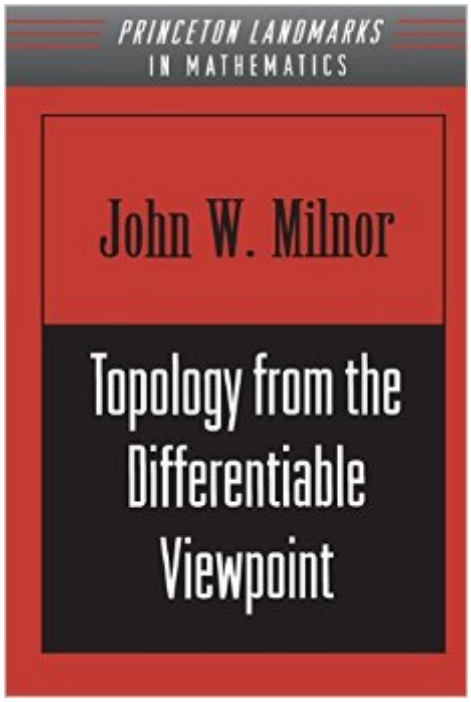
Topology From The Differentiable Viewpoint



Synopsis

This elegant book by distinguished mathematician John Milnor, provides a clear and succinct introduction to one of the most important subjects in modern mathematics. Beginning with basic concepts such as diffeomorphisms and smooth manifolds, he goes on to examine tangent spaces, oriented manifolds, and vector fields. Key concepts such as homotopy, the index number of a map, and the Pontryagin construction are discussed. The author presents proofs of Sard's theorem and the Hopf theorem.

Book Information

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Customer Reviews

Milnor's "Topology from the Differentiable Viewpoint" is a brief sketch of differential topology, well written, as are all books by Milnor, with clear, concise explanations. For students who wish to learn the subject, it should be read as a companion to a more substantive text, such as Guillemin & Pollack's Differential Topology or Hirsch's Differential Topology, as too much of the material is left out for this to be adequate as a textbook. OTOH, it does make for good bedtime reading.While this book is highly regarded among mathematicians, it is not without its faults, namely,- it fails to cover many topics of importance, such as transversality (only mentioned in an exercise), embeddings, differential forms, integration, Morse theory, and the intersection form;- it only cites some theorems without proving them, or it leaves the proofs to the reader;- it offers proofs of many theorems that are really only sketches without all the details;- manifolds are only defined as subsets of Euclidean

spaces;- there is only 1 collection of 17 problems at the end of the book, which are used to introduce important concepts; and- it probably moves too quickly for true beginners, packing a lot into only 51 pages.So don’t buy this as your only, or even first, book on differential topology.

Topology from the Differentiable Viewpoint An Introduction to Differentiable Manifolds and Riemannian Geometry, Revised, Volume 120, Second Edition (Pure and Applied Mathematics) An Introductory Course on Differentiable Manifolds (Aurora: Dover Modern Math Originals) Vision de los vencidos/ Viewpoint of the Defeated (Biblioteca Del Estudiante Universitario) (Spanish Edition) Viewpoint Level 1 Student’s Book Quantum Transport in Mesoscopic Systems: Complexity and Statistical Fluctuations. A Maximum Entropy Viewpoint (Mesoscopic Physics and Nanotechnology) Topology Optimization Introduction to Topology: Third Edition (Dover Books on Mathematics) Algebraic Topology Geometry, Topology and Physics, Second Edition (Graduate Student Series in Physics) Topology of Surfaces, Knots, and Manifolds Topology (2nd Economy Edition) Principles of Topology (Dover Books on Mathematics) Topology (Undergraduate Texts in Mathematics) Elementary Applied Topology Basic Concepts of Algebraic Topology (Undergraduate Texts in Mathematics) Three-Dimensional Geometry and Topology, Vol. 1 Topology (2nd Edition) The Infinite-Dimensional Topology of Function Spaces, Volume 64 (North-Holland Mathematical Library) Many-Body Physics, Topology and Geometry