Introduction to Smooth Manifolds (Hardback)

By John M. Lee

Springer-Verlag New York Inc., United States, 2012. Hardback. Condition: New. 2nd ed. 2013. Language: English . Brand New Book. This book is an introductory graduate-level textbook on the theory of smooth manifolds. Its goal is to familiarize students with the tools they will need in order to use manifolds in mathematical or scientific research--- smooth structures, tangent vectors and covectors, vector bundles, immersed and embedded submanifolds, tensors, differential forms, de Rham cohomology, vector fields, flows, foliations, Lie derivatives, Lie groups, Lie algebras, and more. The approach is as concrete as possible, with pictures and intuitive discussions of how one should think geometrically about the abstract concepts, while making full use of the powerful tools that modern mathematics has to offer. This second edition has been extensively revised and clarified, and the topics have been substantially rearranged. The book now introduces the two most important analytic tools, the rank theorem and the fundamental theorem on flows, much earlier so that they can be used throughout the book. A few new topics have been added, notably Sard s theorem and transversality, a proof that infinitesimal Lie group actions generate global group actions, a more thorough study of first-order partial differential equations, a...

READ ONLINE
[5.77 MB]

Reviews

This ebook is wonderful. I could comprehended every thing out of this created e ebook. I am just effortlessly can get a satisfaction of reading a created pdf.
-- Federico Nolan

This ebook could be worthy of a read through, and far better than other. I am quite late in start reading this one, but better then never. I realized this publication from my dad and i advised this publication to learn.
-- Stefan Von