Record Nr. UNINA9910438141403321 Autore Gadea Pedro M Titolo Analysis and Algebra on Differentiable Manifolds: A Workbook for Students and Teachers / / by Pedro M. Gadea, Jaime Muñoz Masqué, Ihor V. Mykytyuk Dordrecht:,: Springer Netherlands:,: Imprint: Springer., 2013 Pubbl/distr/stampa **ISBN** 94-007-5952-5 Edizione [2nd ed. 2013.] Descrizione fisica 1 online resource (634 p.) Collana Problem Books in Mathematics, , 0941-3502 Disciplina 510 Soggetti Differential geometry **Differential Geometry** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Differentiable manifolds -- Tensor Fields and Differential Forms --Nota di contenuto Integration on Manifolds -- Lie Groups -- Fibre Bundles -- Riemannian Geometry -- Some Formulas and Tables. Sommario/riassunto This is the second edition of this best selling problem book for students, now containing over 400 completely solved exercises on differentiable manifolds, Lie theory, fibre bundles and Riemannian manifolds. The exercises go from elementary computations to rather sophisticated tools. Many of the definitions and theorems used throughout are explained in the first section of each chapter where they appear. A 56-page collection of formulae is included which can be useful as an aide-mémoire, even for teachers and researchers on those topics. In this 2nd edition: • 76 new problems • a section devoted to a generalization of Gauss' Lemma • a short novel section dealing with some properties of the energy of Hopf vector fields • an expanded collection of formulae and tables • an extended bibliography Audience

> This book will be useful to advanced undergraduate and graduate students of mathematics, theoretical physics and some branches of engineering with a rudimentary knowledge of linear and multilinear

algebra.