Record Nr. UNINA9910780878903321 Autore Mukhi Sunil **Titolo** Lectures on advanced mathematical methods for physicists [[electronic resource] /] / Sunil Mukhi, N. Mukunda Singapore, : World Scientific, 2010 Pubbl/distr/stampa 1-282-76364-4 **ISBN** 9786612763649 981-4299-74-X Descrizione fisica 1 online resource (288 p.) Altri autori (Persone) MukundaN Disciplina 530 530.15 Soggetti Mathematical physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto pt. 1. Topology and differential geometry -- pt. 2. Group theory and structure and representations of compact simple lie groups and algebras. This book presents a survey of Topology and Differential Geometry and Sommario/riassunto also, Lie Groups and Algebras, and their Representations. The first topic is indispensable to students of gravitation and related areas of modern physics, (including string theory) while the second has applications in gauge theory and particle physics, integrable systems and nuclear physics. Part I provides a simple introduction to basic topology, followed by a survey of homotopy. Calculus of differentiable manifolds is then developed, and a Riemannian metric is introduced along with the key concepts of connections and curva