Record Nr. UNINA9910813750403321 Autore Mukhi Sunil Titolo Lectures on advanced mathematical methods for physicists / / Sunil Mukhi, N. Mukunda Singapore, : World Scientific, 2010 Pubbl/distr/stampa 1-282-76364-4 **ISBN** 9786612763649 981-4299-74-X Edizione [1st ed.] 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 Note generali Description based upon print version of record. 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. Sommario/riassunto This book presents a survey of Topology and Differential Geometry and 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