Record Nr. UNINA9910136471103321 Autore **Boileau Michel** Titolo Ricci Flow and Geometric Applications [[electronic resource]]: Cetraro, Italy 2010 / / by Michel Boileau, Gerard Besson, Carlo Sinestrari, Gang Tian ; edited by Riccardo Benedetti, Carlo Mantegazza Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2016 3-319-42351-7 **ISBN** Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (XI, 136 p.) Collana C.I.M.E. Foundation Subseries; ; 2166 Disciplina 515.353 Soggetti Differential geometry Partial differential equations **Differential Geometry** Partial Differential Equations Lingua di pubblicazione Inglese Materiale a stampa **Formato** Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Preface -- The Differentiable Sphere Theorem (after S. Brendle and R. Schoen) -- Thick/Thin Decomposition of three-manifolds and the Geometrisation Conjecture -- Singularities of three-dimensional Ricci flows -- Notes on K"ahler-Ricci flow. Sommario/riassunto Presenting some impressive recent achievements in differential geometry and topology, this volume focuses on results obtained using techniques based on Ricci flow. These ideas are at the core of the study of differentiable manifolds. Several very important open problems and conjectures come from this area and the techniques described herein are used to face and solve some of them. The book's four chapters are based on lectures given by leading researchers in the field of geometric analysis and low-dimensional geometry/topology, respectively offering an introduction to: the differentiable sphere theorem (G. Besson), the geometrization of 3-manifolds (M. Boileau), the singularities of 3-

dimensional Ricci flows (C. Sinestrari), and Kähler-Ricci flow (G. Tian).

The lectures will be particularly valuable to young researchers

interested in differential manifolds.