Record Nr. UNISALENTO991003636539707536 Geometry of PDEs and related problems [e-book]: Cetraro, Italy 2017 / **Titolo** by Xavier Cabré, Antoine Henrot, Daniel Peralta-Salas, Wolfgang Reichel, Henrik Shahgholian; edited by Chiara Bianchini, Antoine Henrot, Rolando Magnanini **ISBN** 3319951866 9783319951867 3319951858 9783319951850 Descrizione fisica 1 online resource (xi, 196 pages): illustrations (some color) Collana Lecture notes in mathematics, 0075-8434; 2220. CIME Foundation subseries Classificazione AMS 35-06 AMS 35J LC QA377.C33 Altri autori (Persone) Cabré, Xavierauthor Bianchini, Chiara Henrot, Antoineauthor Magnanini, Rolando Peralta-Salas, Daniel Reichel, Wolfgang Shahgholian, Henrik C.I.M.E. Summer School "Splines and PDEs" <2017; Cetraro, Italy> Altri autori (Convegni) 515.353 Disciplina Differential equations, Elliptic - Congresses Soggetti Differential equations, Partial - Congresses Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references Nota di contenuto Preface / Chiara Bianchini, Antoine Henrot, Rolando Magnanini --Stable solutions to some elliptic problems: minimal cones, the Allen-Cahn equation, and blow-up solutions / Xavier Cabré and Giorgio Poggesi -- Isoperimetric inequalities for eigenvalues of the Laplacian / Antoine Henrot -- Topological aspects of critical points and level sets in elliptic PDEs / Alberto Encisco and Daniel Peralta-Salas -- Symmetry

properties for solutions of higher-order elliptic boundary value

Sommario/riassunto

problems / Wolfgang Reichel -- Recent trends in free boundary regularity / Henrik Shahgholian

The aim of this book is to present different aspects of the deep interplay between Partial Differential Equations and Geometry. It gives an overview of some of the themes of recent research in the field and their mutual links, describing the main underlying ideas, and providing up-to-date references. Collecting together the lecture notes of the five mini-courses given at the CIME Summer School held in Cetraro (Cosenza, Italy) in the week of June 19-23, 2017, the volume presents a friendly introduction to a broad spectrum of up-to-date and hot topics in the study of PDEs, describing the state-of-the-art in the subject. It also gives further details on the main ideas of the proofs, their technical difficulties, and their possible extension to other contexts. Aiming to be a primary source for researchers in the field, the book will attract potential readers from several areas of mathematics