1. Record Nr. UNINA9910463843803321 Autore Boccardo L (Lucio) Titolo Elliptic partial differential equations: existence and regularity of distributional solutions / / Lucio Boccardo, Gisella Croce Pubbl/distr/stampa Boston; ; Berlin: ,: De Gruyter Mouton, , [2014] ©2014 **ISBN** 3-11-031542-4 Descrizione fisica 1 online resource (204 p.) Collana De Gruyter Studies in Mathematics; ; 55 Altri autori (Persone) CroceGisella Disciplina 515/.3533 Soggetti Differential equations, Elliptic Differential equations, Partial Electronic books. 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 Front matter -- Contents -- Notations -- 1. Introduction -- Part I -- 2. Some fixed point theorems -- 3. Preliminaries of real analysis -- 4. Linear and semilinear elliptic equations -- 5. Nonlinear elliptic equations -- 6. Summability of the solutions -- 7. H2 regularity for linear problems -- 8. Spectral analysis for linear operators -- 9. Calculus of variations and Euler's equation -- Part II -- 10. Natural growth problems -- 11. Problems with low summable sources -- 12. Uniqueness -- 13. A problem with polynomial growth -- 14. A problem with degenerate coercivity -- Bibliography -- Index Elliptic partial differential equations is one of the main and most active Sommario/riassunto areas in mathematics. This book is devoted to the study of linear and nonlinear elliptic problems in divergence form, with the aim of providing classical results, as well as more recent developments about distributional solutions. For this reason this monograph is addressed to master's students, PhD students and anyone who wants to begin

research in this mathematical field.