Record Nr. UNINA9910300260303321 Autore Agranovich Mikhail S Titolo Sobolev Spaces, Their Generalizations and Elliptic Problems in Smooth and Lipschitz Domains [[electronic resource] /] / by Mikhail S. Agranovich Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2015 3-319-14648-3 **ISBN** Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (XIII, 331 p.) Collana Springer Monographs in Mathematics, , 1439-7382 Disciplina 515.782 Soggetti Partial differential equations Functional analysis Operator theory Potential theory (Mathematics) Integral equations Mathematical physics Partial Differential Equations **Functional Analysis Operator Theory Potential Theory** Integral Equations Mathematical Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Preface -- Preliminaries -- 1 The Spaces Hs. -- 2 Elliptic Equations and Elliptic Boundary Value Problems -- 3 The Spaces Hs and Second-Order Strongly Elliptic Systems in Lipschitz Domains -- 4 More General Spaces and Their Applications -- References -- Index. Sommario/riassunto This book, which is based on several courses of lectures given by the

> author at the Independent University of Moscow, is devoted to Sobolevtype spaces and boundary value problems for linear elliptic partial differential equations. Its main focus is on problems in non-smooth (Lipschitz) domains for strongly elliptic systems. The author, who is a

prominent expert in the theory of linear partial differential equations, spectral theory, and pseudodifferential operators, has included his own very recent findings in the present book. The book is well suited as a modern graduate textbook, utilizing a thorough and clear format that strikes a good balance between the choice of material and the style of exposition. It can be used both as an introduction to recent advances in elliptic equations and boundary value problems, and as a valuable survey and reference work. It also includes a good deal of new and extremely useful material not available in standard textbooks to date. Graduate and post-graduate students, as well as specialists working in the fields of partial differential equations, functional analysis, operator theory, and mathematical physics will find this book particularly valuable.