Record Nr. UNINA9910812281103321 Autore Nair M. Thamban **Titolo** Linear operator equations [[electronic resource]]: approximation and regularization / / M. Thamban Nair Singapore; ; Hackensack, NJ, : World Scientific, c2009 Pubbl/distr/stampa **ISBN** 1-282-44288-0 9786612442889 981-283-565-2 Descrizione fisica 1 online resource (264 p.) Disciplina 515/.7246 Soggetti Linear operators Operator equations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references (p. 241-245) and index. Nota di contenuto Preface: Contents: 1. Introduction: 2. Basic Results from Functional Analysis; 3. Well-Posed Equations and Their Approximations; 4. Ill-Posed Equations and Their Regularizations; 5. Regularized Approximation Methods; Bibliography; Index Sommario/riassunto Many problems in science and engineering have their mathematical formulation as an operator equation Tx=y, where T is a linear or nonlinear operator between certain function spaces. In practice, such equations are solved approximately using numerical methods, as their exact solution may not often be possible or may not be worth looking for due to physical constraints. In such situations, it is desirable to know how the so-called approximate solution approximates the exact solution, and what the error involved in such procedures would be. This

book is concerned with the investigation of the abo