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| Nota di bibliografia | Includes bibliographical references (pages [221]-304) and indexes. |
| Nota di contenuto | Pre-Requisites of Fixed Points -- The Picard Iteration -- The Krasnoselskij Iteration -- The Mann Iteration -- The Ishikawa Iteration -- Other Fixed Point Iteration Procedures -- Stability of Fixed Point Iteration Procedures -- Iterative Solution of Nonlinear Operator Equations -- Error Analysis of Fixed Point Iteration Procedures. |
| Sommario/riassunto | The aim of this monograph is to give a unified introductory treatment of the most important iterative methods for constructing fixed points of nonlinear contractive type mappings. It summarizes the most significant contributions in the area by presenting, for each iterative method considered (Picard iteration, Krasnoselskij iteration, Mann iteration, Ishikawa iteration etc.), some of the most relevant, interesting, representative and actual convergence theorems. Applications to the solution of nonlinear operator equations as well as the appropriate error analysis of the main iterative methods, are also presented. Due to the explosive number of research papers on the topic (in the last 15 years only, more than one thousand articles related to the subject were published), it was felt that such a monograph was imperatively necessary. The volume is useful for authors, editors, and |

reviewers. It introduces concrete criteria for evaluating and judging the plethora of published papers.