1. Record Nr. UNINA9910254098403321

Autore	Zaslavski Alexander J
Titolo	Approximate solutions of common fixed-point problems / / by Alexander J. Zaslavski
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-33255-4
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (457 p.)
Collana	Springer Optimization and Its Applications, , 1931-6828 ; ; 112
Disciplina	510
Soggetti	Calculus of variations Numerical analysis Operator theory Calculus of Variations and Optimal Control; Optimization Numerical Analysis Operator Theory
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	1.Introduction -- 2. Dynamic string-averaging methods in Hilbert spaces -- 3. Iterative methods in metric spaces -- 4. Dynamic string-averaging methods in normed spaces -- 5. Dynamic string-maximum methods in metric spaces -- 6. Spaces with generalized distances -- 7. Abstract version of CARP algorithm -- 8. Proximal point algorithm -- 9. Dynamic string-averaging proximal point algorithm -- 10. Convex feasibility problems -- 11. Iterative subgradient projection algorithm -- 12. Dynamic string-averaging subgradient projection algorithm.– References.– Index. .
Sommario/riassunto	This book presents results on the convergence behavior of algorithms which are known as vital tools for solving convex feasibility problems and common fixed point problems. The main goal for us in dealing with a known computational error is to find what approximate solution can be obtained and how many iterates one needs to find it. According to know results, these algorithms should converge to a solution. In this exposition, these algorithms are studied, taking into account computational errors which remain consistent in practice. In this case

the convergence to a solution does not take place. We show that our algorithms generate a good approximate solution if computational errors are bounded from above by a small positive constant. Beginning with an introduction, this monograph moves on to study: · dynamic string-averaging methods for common fixed point problems in a Hilbert space · dynamic string methods for common fixed point problems in a metric space · dynamic string-averaging version of the proximal algorithm · common fixed point problems in metric spaces · common fixed point problems in the spaces with distances of the Bregman type · a proximal algorithm for finding a common zero of a family of maximal monotone operators · subgradient projections algorithms for convex feasibility problems in Hilbert spaces .