1. Record Nr. UNINA9910367739103321

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Titolo	Iterative Methods for Solving Nonlinear Equations and Systems
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2019
ISBN	3-03921-941-3
Descrizione fisica	1 electronic resource (494 p.)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Solving nonlinear equations in Banach spaces (real or complex nonlinear equations, nonlinear systems, and nonlinear matrix equations, among others), is a non-trivial task that involves many areas of science and technology. Usually the solution is not directly affordable and require an approach using iterative algorithms. This Special Issue focuses mainly on the design, analysis of convergence, and stability of new schemes for solving nonlinear problems and their application to practical problems. Included papers study the following topics: Methods for finding simple or multiple roots either with or without derivatives, iterative methods for approximating different generalized inverses, real or complex dynamics associated to the rational functions resulting from the application of an iterative method on a polynomial. Additionally, the analysis of the convergence has been carried out by means of different sufficient conditions assuring the local, semilocal, or global convergence. This Special issue has allowed us to present the latest research results in the area of iterative processes for solving nonlinear equations as well as systems and matrix equations. In addition to the theoretical papers, several manuscripts on signal processing, nonlinear integral equations, or partial differential equations, reveal the connection between iterative methods and other branches of science and engineering.

2. Record Nr. UNINA9910739468803321

Titolo	Microstructural parcellation of the human cerebral cortex : from Brodmann's post-mortem map to in vivo mapping with high-field magnetic resonance imaging / / Stefan Geyer, Robert Turner, editors
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	3-642-37824-2
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (260 p.)
Altri autori (Persone)	GeyerStefen TurnerR <1946-> (Robert)
Disciplina	610 612 612.8 612.825
Soggetti	Cerebral cortex - Research - Technique Cerebral cortex - Physiology Brain mapping Microtomy
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	pt. 1. "Classical" cyto- and myeloarchitectonic human brain maps -- pt. 2. The challenge of mapping cortical areas noninvasively in living brains -- pt. 3. "In vivo Brodmann mapping" with high-field magnetic resonance imaging.
Sommario/riassunto	Unraveling the functional properties of structural elements in the brain is one of the fundamental goals of neuroscientific research. In the cerebral cortex this is no mean feat, since cortical areas are defined microstructurally in post-mortem brains but functionally in living brains with electrophysiological or neuroimaging techniques – and cortical areas vary in their topographical properties across individual brains. Being able to map both microstructure and function in the same brains noninvasively in vivo would represent a huge leap forward. In recent years, high-field magnetic resonance imaging (MRI) technologies with spatial resolution below 0.5 mm have set the stage for this by detecting structural differences within the human cerebral cortex,

beyond the Stria of Gennari. This provides the basis for an in vivo microanatomical brain map, with the enormous potential to make direct correlations between microstructure and function in living human brains. This book starts with Brodmann's post-mortem map published in the early 20th century, moves on to the almost forgotten microstructural maps of von Economo and Koskinas and the Vogt-Vogt school, sheds some light on more recent approaches that aim at mapping cortical areas noninvasively in living human brains, and culminates with the concept of "in vivo Brodmann mapping" using high-field MRI, which was introduced in the early 21st century.