

1. Record Nr.	UNINA9910254252903321
Autore	Anastassiou George A
Titolo	Intelligent Numerical Methods II: Applications to Multivariate Fractional Calculus / / by George A. Anastassiou, Ioannis K. Argyros
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	9783319336060 3319336061
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XII, 116 p.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 649
Disciplina	519.535
Soggetti	Computational intelligence Artificial intelligence Computer science - Mathematics Computational complexity Computational Intelligence Artificial Intelligence Computational Science and Engineering Complexity
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Fixed Point Results and Applications in Left Multivariate Fractional Calculus -- Fixed Point Results and Applications in Right Multivariate Fractional Calculus -- Semi-local Iterative Procedures and Applications In K-Multivariate Fractional Calculus -- Newton-like Procedures and Applications in Multivariate Fractional Calculus -- Implicit Iterative Algorithms and Applications in Multivariate Calculus -- Monotone Iterative Schemes and Applications in Fractional Calculus -- Extending the Convergence Domain of Newton's Method -- The Left Multidimensional Riemann-Liouville Fractional Integral -- The Right Multidimensional Riemann-Liouville Fractional Integral.
Sommario/riassunto	In this short monograph Newton-like and other similar numerical methods with applications to solving multivariate equations are developed, which involve Caputo type fractional mixed partial derivatives and multivariate fractional Riemann-Liouville integral

operators. These are studied for the first time in the literature. The chapters are self-contained and can be read independently. An extensive list of references is given per chapter. The book's results are expected to find applications in many areas of applied mathematics, stochastics, computer science and engineering. As such this short monograph is suitable for researchers, graduate students, to be used in graduate classes and seminars of the above subjects, also to be in all science and engineering libraries.
