1. Record Nr. UNINA9910158868503321

Autore	Lovecraft H. P.
Titolo	The complete H.P. Lovecraft collection / / by H.P. Lovecraft
Pubbl/distr/stampa	Tustin, California : , : Xist Publishing, , 2014
ISBN	1-68195-738-8
Descrizione fisica	1 online resource (1431 p.)
Collana	Xist Classics
Soggetti	Horror tales, American
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.

2. Record Nr. UNINA9910484622003321

Autore	Annaby Mahmoud H
Titolo	q-Fractional calculus and equations / / Mahmoud H. Annaby, Zeinab S. Mansour
Pubbl/distr/stampa	Berlin ; ; Heidelberg, : Springer, c2012
ISBN	3-642-30898-8
Edizione	[1st ed. 2012.]
Descrizione fisica	1 online resource (xix, 318 pages) : illustrations
Collana	Lecture notes in mathematics, , 0075-8434 ; ; 2056
Altri autori (Persone)	MansourZeinab S
Disciplina	515.83
Soggetti	Fractional calculus Difference equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (p. 303-314) and indexes.
Nota di contenuto	1 Preliminaries -- 2 q-Difference Equations -- 3 q-Sturm Liouville Problems -- 4 Riemann–Liouville q-Fractional Calculi -- 5 Other q-Fractional Calculi -- 6 Fractional q-Leibniz Rule and Applications -- 7

q-Mittag–Leffler Functions -- 8 Fractional q-Difference Equations -- 9 Applications of q-Integral Transforms.

Sommario/riassunto

This nine-chapter monograph introduces a rigorous investigation of q-difference operators in standard and fractional settings. It starts with elementary calculus of q-differences and integration of Jackson's type before turning to q-difference equations. The existence and uniqueness theorems are derived using successive approximations, leading to systems of equations with retarded arguments. Regular q-Sturm–Liouville theory is also introduced; Green's function is constructed and the eigenfunction expansion theorem is given. The monograph also discusses some integral equations of Volterra and Abel type, as introductory material for the study of fractional q-calculi. Hence fractional q-calculi of the types Riemann–Liouville; Grünwald–Letnikov; Caputo; Erdélyi–Kober and Weyl are defined analytically. Fractional q-Leibniz rules with applications in q-series are also obtained with rigorous proofs of the formal results of Al-Salam-Verma, which remained unproved for decades. In working towards the investigation of q-fractional difference equations; families of q-Mittag-Leffler functions are defined and their properties are investigated, especially the q-Mellin–Barnes integral and Hankel contour integral representation of the q-Mittag-Leffler functions under consideration, the distribution, asymptotic and reality of their zeros, establishing q-counterparts of Wiman's results. Fractional q-difference equations are studied; existence and uniqueness theorems are given and classes of Cauchy-type problems are completely solved in terms of families of q-Mittag-Leffler functions. Among many q-analogs of classical results and concepts, q-Laplace, q-Mellin and q2-Fourier transforms are studied and their applications are investigated.