

## Contents

Preface	ix
Remembering Nicole De Grande-De Kimpe (1936-2008) C. PEREZ-GARCIA AND W.H. SCHIKHOF	1
Using van der Put basis to determine if a 2-adic function is measure-preserving or ergodic w.r.t. Haar measure V. ANASHIN, A. KHRENNIKOV, E. YUROVA	33
$q$ -difference equations in ultrametric fields NAJET BOUDJRIDA, ABDELBAKI BOUTABAA, AND SAMIA MEDJERAB	39
Primitives of $p$ -adic meromorphic functions KAMAL BOUSSAF, ALAIN ESCASSUT, AND JACQUELINE OJEDA	51
Existence of GCD's and factorization in rings of non-Archimedean entire functions WILLIAM CHERRY	57
The radius of convergence function for first order differential equations GILLES CHRISTOL	71
The Lipschitz condition for rational functions on ultrametric valued fields BERTIN DIARRA	91
Differential and maximal ideals of the ultrametric Corona algebra ALAIN ESCASSUT	105
Linear topologies on non-Archimedean function spaces A.K. KATSARAS	117
On maximal closed ideals in topological algebras of continuous vector-valued functions over non-Archimedean valued fields A.K. KATSARAS, L.A. KHAN AND A.R. KHAN	135
Perturbations of bounded linear operators on orthomodular Hilbertian spaces HANS A. KELLER AND HERMINIA OCHSENIUS	143
On some geometrical properties of linear subspaces of $l^\infty$ ALBERT KUBZDELA	157
The geometry of $p$ -adic fractal strings: A comparative survey MICHEL L. LAPIDUS AND LŨ' HÙNG	163

Identities and congruences for Genocchi numbers HAMADOUN MAÏGA	207
Toward an ultrametric calculus in a field $K$ with an infinite rank valuation HÉCTOR M. MORENO	221
Extending the multiplication of a totally ordered group to its completion E. OLIVOS AND W.H. SCHIKHOF	231
Norm Hilbert spaces with uncountable orthogonal basis SIBYLLA PRIESS-CRAMPE	243
Absolute and relative extrema, the mean value theorem and the inverse function theorem for analytic functions on a Levi-Civita field KHODR SHAMSEDDINE	257
Some $p$ -adic $q$ -difference equations on $\mathcal{C}(\mathbb{Z}_p, K)$ FANA TANGARA	269