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G. L. Booth and N. J. Groenewald

ON STRONGLY PRIME NEAR-RINGS

113-121

Abstract: Two concepts of strongly prime appear in the literature of near-rings. These are called strongly prime and strongly equiprime respectively. In this paper we obtain a number of characterizations of each, and chain conditions are studied. It is shown that the concepts of strongly prime and 3-prime coincide in the presence of the a.c.c. on left ideals, while strongly equiprime and equiprime coincide if the a.c.c. on N-subgroups is satisfied. The radicals associated with each of these two definitions are considered, and their place among the other well-known radicals of near-rings is considered.

S. M. Mazhar

A REMARK ON A RECENT RESULT ON ABSOLUTE SUMMABILITY FACTORS 123-131

Abstract: Recently Bor has proved a theorem on $|\bar{N}, p_n|_k$ summability factors of an infinite series. The present note deals with a further generalization of his result.

Sehie Park

FIXED POINTS AND OPENNESS OF MULTIMAPS

133-141

Abstract: Nguyen's results [12] for the openness of a map $A : X \rightarrow E$, where X is a convex subset of a locally convex Hausdorff topological vector space E , are extended to a very large class of multimaps which appear in nonlinear analysis and algebraic topology. Our arguments are based on a new fixed point theorem on compact multimaps.

M. K. R. S. Veera Kumar

SOME SEPARATION PROPERTIES USING α -OPEN SETS

143-147

Abstract: In this paper some separation properties using α -open sets in topological spaces are defined and their relationships with some other properties are studied.

Gordon Mason

A NOTE ON STRONG FORMS OF REGULARITY FOR NEARRINGS

149-153

Abstract: Boris Shein has given 26 equivalent conditions characterizing strongly regular rings. We examine these in the context nearings.

Mohamad Mehdi

L' INVOLUTION DU NOYAU D'UN TENSEUR DE TYPE (1,1)

155-158

Abstract: On demontre que le noyau d'un champ d'endomorphismes h de TM est involutif si et seulement s'il existe une connexion linéaire D telle que $ADh + hT = 0$, où $(ADh)(X, Y) := (D_x h)Y - (D_y h)X, \forall X, Y \in \chi(M)$ et que T désigne la torsion de la connexion D .

We show that Kernel of a field of endomorphisms h over TM is involutif if and only if there exists a linear connections D such that $ADh + hT = 0$, where $(ADh)(X, Y) := (D_x h)Y - (D_y h)X \forall X, Y \in \chi(M)$ and T is the torsion of D .

J. L. López-Bonilla and J. M. Rivera-Rebolledo

ROBINSON-TRAUTMAN SPACETIMES AND LANCZOS SPINTENSOR

159-167

Abstract: We solve the Weyl-Lanczos equations for the Robinson-Trautman metrics in general relativity by using the formalism of null tetrads,

Jong Soo Jung and Daya Ram Sahu

FIXED POINT THEOREMS FOR NON-LIPSCHIZIAN SEMIGROUPS

WITHOUT CONVEXITY

169-176

Abstract: A fixed point theorem for noncommutative semigroups of non-Lipschitzian mappings is proved without convexity in Banach spaces.

Murtaza A. Quadri, Asma Ali and Achlesh Kumari

STRUCTURE OF RINGS WITH SOME POLYNOMIAL CONSTRAINTS

177-182

Abstract: In the present paper, we study the following conditions and obtain some decomposition theorems for associative rings.

$$(i) \quad xy = f(y)x^n;$$

$$(ii) \quad xy = f(x)y^n$$

$$(iii) \quad xy = x^n f(y);$$

$$(iv) \quad xy = y^n f(x),$$

where $f(t)$ is a polynomial in $t^2 \mathcal{Z}[t]$ varying with the pair of elements x and y . Finally we deduce the commutativity of such rings.

Camillo Trapani

WEAK AND REGULAR REPRESENTATIONS OF *-ALGEBRAS

183-198

Abstract: Weak *-representations of *-algebras, defined making use of the notion of weak partial multiplication for families of closable operators in Hilbert space are investigated and the GNS-construction for a class of linear functionals is given.

Always using of the theory of partial O^* algebras, a class of unbounded *-representations, called regular is introduced and some properties of selfadjoint representations are generalized.

D. C. Sanyal and A. K. Maiti

ON PULSATILE FLOW OF BLOOD THROUGH A STENOSED ARTERY

199-213

Abstract: The aim of the present investigations is to study the pulsatile flow of blood through a stenosed artery assuming the blood to be conducting. The numerical solutions of axial velocity and pressure gradient are shown graphically.

M. Jayamala and K. S. Padmanabhan

ANALYTIC FUNCTIONS OF A PROPER CONTRACTION AND PICK'S
THEOREM II

215-226

Abstract: In a series of papers *Ky* Fan makes a study of analytic functions of operators in the sense of functional calculus. Among these results Pick's Theorem for operator valued analytic functions and analytic functions of a proper contraction are generalized in this paper.

S. D. Sharma, Jagdish Raj and Renu Anand

COMPOSITION OPERATORS ON BERGMAN-ORLICZ TYPE SPACES

227-235

Abstract: In this paper, we introduce a topological vector space of analytic functions on the unit disc and name it Bergmen-Oriticz type space. An attempt is made to discuss composition operators on it.
