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CONTENTS

Abstract: Two concepts of strongly prime appear in the literature of near-rings. These are called strongly prime and strongly equiprime respictively. In this paper we obtain a number of characterization 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.

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.

Abstract: Nguyen's results [12] for the openness of a map $A : X \to E$, where X is a convex subsets 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 arguements are based on a new fixed point theorem on compact multimaps.

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

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

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

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

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

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

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

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

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

$$(iv)xy = y^n f(x)$$

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

Abstract: Weak *- representations of *-algebras,defined making use of the notion of weak partial multiplication for families of closable operators in Hibert 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.

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.

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

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.

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