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K. D Magill Jr.

RIGHT RINGS OF SOME EUCLIDEAN NEARRINGS 315-331

Abstract: Let N be any right nearrings whose additive group is abelian and for each $a \in n$, Let p_a denote the selfmap of N which is defined by $p_a(b) = ba$. Each p_a is an endomorphism of the additive group $(N + 1)$, or N and the right ring of N is defined to be the subring of the endomorphism ring of $(N, +)$ which is generated by $(p_a : a \in N)$. We determine the right rings of a number of euclidean nearrings, that is, topological nearrings whose additive groups are n -dimensional Euclidean groups.

G. Balasubramanian

PRE-CONNECTEDNESS AND DISCONNECTEDNESS IN FUZZY TOPOLOGICAL SPACES 333-346

Abstract: Various types of connectedness and disconnectedness are introduced and studied using the concept of fuzzy pre-open set in fuzzy topological spaces.

P. C. Vaidya and L. K. Patel

ROTATING DISTRIBUTIONS PERVADED BY NULL RADIATION 347-353

Abstract: Some non-static exact solutions of Einstein's field equations corresponding to a field of flowing nul radiation are presented. The geometry of these solutions is described by the Kerr-Schld metric. They admit a geodetic shear-fear null congruence. In one of the

situations, the radiation and rotation are intimately linked. The other two solutions represent the radiating Kerr metric and a radiation absorbing Kerr metric respectively.

Marc P. Thomas*

SINGLE-ELEMENT PROPERTIES IN COMMUTATIVE RADICAL BANACH

ALGEBRAS: A CLASSIFICATION SCHEME

355-397

Abstract: We first develop a classification scheme for studying properties of a fixed non-zero element s of a commutative radical Banach algebra \mathcal{R} . We then use this scheme to investigate under what conditions s can have prime-like properties. By prime-like properties we include definitions of prime, almost prime, and almost semiprime. If \mathcal{R} is an integral domain the first two properties are equivalent. Examples are given of \mathcal{R} not an integral domain in which s is prime but not almost prime. Surprisingly, the latter two properties seem to be stronger properties. These investigations are pertinent to unsolved problems in the theory of Banach algebras, including for example, the unbounded Kleinecke Shirokov Conjecture. We give several sufficient conditions which preclude prim-like properties but, unfortunately, are unable to give a complete answer. We conjecture that a non-zero element s in a commutative radical Banach algebra \mathcal{R} can never be almost or even almost semiprime. Let $\mathcal{R}^\#$ denote the unitization of \mathcal{R} . We also conjecture that such an element s can be prime only if the short exact sequence

$$0 \longrightarrow s\mathcal{R}^\# \longrightarrow \mathcal{R} \longrightarrow \mathcal{R}/s\mathcal{R}^\# \longrightarrow 0$$

splits, $s\mathcal{R}^\#$ is closed, $\mathcal{R}/s\mathcal{R}^\#$ is an integral domain but \mathcal{R} is not an integral domain.

S. S Bhatia

ON CONVERGENCE OF CERTAIN TRIGONOMETRIC SUMS IN THE L^1

METRIC SPACE

399-405

Abstract: We consider here the L^1 -convergence of the cosine sums introduced by Kumari and Ram [3] to a cosine trigonometric series and deduce a result of Teljakovskĭi [7] as a corollary.

Guo-Jun Wang And Wei Wang

GENERALIZATION OF THE SCHEEFFER'S THEOREM

407-413

Abstract: There is an interesting theorem in point set theory, the Scheeffer's theorem, which says that if G and A are a nowhere dense subset and a countable subset of R respectively, then for any given interval (a, b) there exists $c \in (a, b)$ such that $A + c$ does not intersect G . The aim of this paper is to generalize Scheeffer's theorem in two aspect: generalize R to be the so called translation space.

Blagovest P. Damy Anov

ON THE PRODUCT OF DISTRIBUTIONS IN COLOMBEAU ALGEBRA 415-425

Abstract: The differential \mathcal{C} -algebra \mathcal{G} of generalized functions of $J - F$. Colombeau contains the space \mathcal{D} of Schwartz distribution as a \mathcal{C} -vector subspaces and has a notion of associations that generalizes the equality in \mathcal{D}' . This is particularly useful for evaluation of product of distributions, as they are embedded in \mathcal{G} , in terms of distribution again. This paper is devoted to a general property of the distribution products in Colombeau algebra together with its applications and to results on particular products of distributions with coinciding singularities, as embedded in \mathcal{G} . All formulas obtained are also easily transformed into regularized model products of classical distribution theory.

Satyanarayana Bhavanari

A NOTE ON Γ -NEAR-RINGS

427-433

Abstract: The concept of Γ -near-ring was introduced in [4]. The f -prime radical was defined and an element wise characterization was obtained in [5]. In this note, (i) some relations between near-rings and Γ -near-rings were observed; (ii) The concepts $f - s$ -prime ideal, $f - s$ -prime radical, $f - \alpha$ - nil element were introduced; an element wise characterization for the $f - s$ -prime radical was obtained, and as a consequence it was proved that every element of $f - s$ -rad (M) is an $f - \alpha$ -nil element for all $\alpha \in \Gamma$.

Sachiko Atsushiba And Wataru Takahashi

STRONG CONVERGENCE THEOREMS FOR A FINITE FAMILY OF
NONEXPENSIVE MAPPINGS AND APLOCATIONS.

435-453

Abstract: In this paper, we first consider an irritation Scheme given by a finite family of nonexpensive mappings and the prove a strong convergence theorem for a finite family of nonexpensive mappings in a Banach space.

Dachun Yang

APPLICATIONS OF WEIGHTED WEAK HERZ-TYPE SPACES OVER
VILENKIN GROUPS

455-479

Abstract: Let G be a bounded compact Vilenkin group. We study the boundedness on the weighted weak Herz space over G for a class of sublinear operators. We also indicate the sharpness of our result by some examples. Then we discuss the boundedness on the weighted Herz-type Hardy space over G of the Calderón-Zygmund operator of the non-convolution type and we show these operators map the weighted Herz -type and we show these operators map the weighted Herz-type Hardy space into the weighted weak Herz-type Hardy space into the weighted weak Herz-type Hardy space at the extreme case.
