Anatolij Dvurečenskij

**Commutative BCK-algebras and lattice ordered groups with universal property**

Abstract: We study commutative BCK-algebras with the relative cancellation property: if \(a \leq x, y\), and \(x * a = y * a\), then \(x = y\). Such BCK-algebras have universal groups. We use this representation for investigation of BCK-algebras which are Archimedean or semisimple or atomic to generalize some known facts for MV-algebras (= bounded commutative BCK-algebras) using methods of topology and fuzzy sets representations.

D. N. Georgiou, B. K. Papadopoulos and K. Perakis

**Fuzzy strongly and fuzzy super continuous functions**

Abstract: The concepts of fuzzy strongly continuous and fuzzy super continuous functions are introduced and studied in the light of the concept of quasi-coincidence in a fuzzy setting. Finally we give and study the notions of fuzzy super continuously and fuzzy symbol \(\theta\)-continuously convergences.

S. Dascalescu and L. Van Wyk

**The recovery of the non-diagonal tile in a tiled triangular matrix ring**

Abstract: We show that it can happen that the tile in the non-diagonal position of a \(2 \times 2\) upper triangular tiled matrix ring cannot be recovered up to isomorphism even if the base ring is finite.

H. L. Bentley

**Binary nearness spaces**

Abstract: Binary merotopic spaces, respectively nearness spaces, forming a restricted class of contigual spaces including all \(EF\)-proximity spaces, are shown to form a bireflective subcategory of merotopic spaces, respectively nearness spaces.

Satyanarayana Bhavanari and Syam Prasad Kuncham

**On direct and inverse systems in \(N\)-groups**

Abstract: Let \(G\) be an \(N\)-group, where \(N\) is a zero-symmetric right near-ring. We introduce and study the concepts of direct system, inverse system, and \(s\)-inverse system in \(N\)-groups and obtain some interesting results indicating the relationship between these concepts and the concepts of finite Goldie dimension and finite spanning
dimension, which exist in the literature.

T. Fukutake and H. Maki
Remarks on nearly quasi semi-open sets and its application 193-201

Abstract: We investigate the behaviour of nearly quasi semi-open sets in a subspace of a bitopological space and a group of all nqs-homeomorphisms which are invariant on a subspace.

Saeid Jafari and Takashi Noiri
On faintly $\alpha$-continuous functions 203-210

Abstract: Long and Herrington [8] introduced and investigated the notion of faint continuity. Noiri and Popa [15] and Jafari [4] obtained several generalizations of faint continuity. In this paper, we introduce a new generalization of faint continuity called faint $\alpha$-continuity and investigate its basic properties.

M. C. Chaki and M. L. Ghosh
On quasi Einstein manifolds 211-220

Abstract: In this paper Quasi Einstein manifolds $(QE)_n$ $(n \geq 3)$ are studied. It is shown that the curvature tensor $\hat{R}$ of type $(0, 4)$ of such a manifold can be expressed in terms of a symmetric tensor $B$ of type $(0, 2)$ when $n = 3$, but it cannot, in general, be thus expressed when $n > 3$. It is further shown that when $n > 3$, $R$ possesses the same property if the manifold is conformally flat.

Aparna Dar
Simplicial intersection homology theory, Euler characteristic and a simplicial Lefschetz fixed point theorem 221-231

Abstract: we obtain an analogous version of the simplicial Euler-Poincare formula for the Intersection Homology Euler characteristic and obtain some applications. We also prove a simplicial version of the Intersection Homology Lefschetz Fixed Point Theorem.

R. S. Pathak
Asymptotic expansions of generalized functions 233-240

Abstract: Pseudo-asymptotic expansion, quasi-asymptotic expansion and moment asymptotic expansion of generalized functions are discussed. An equivalence of all these concepts is established.

Sunder Lal and M. K. Gupta
Pairwise compactness modulo an ideal 241-251

Abstract: In this paper we introduce the concept of pairwise compactness modulo an ideal in bitopological spaces $(X, \tau_1, \tau_2)$ equipped with an ideal in the sense of pairwise compactness defined by Fletcher, Hoyle and Patty.

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