

CONTENTS

Akrur Behera and Kishore Kumar Dash

ADAMS COCOMPLETION AND GEOMETRIC SINGULAR
REALIZATION OF A SPACE 1-9

Abstract: Deleanu, Frei and Hilton have developed the notion of generalized Adams completion in a categorical context; they have also suggested the dual notion, namely, the Adams cocompletion of an object in a category. In this paper, by introducing “modulo a Serre class \mathcal{C} of abelian group” we characterize mod- \mathcal{C} geometric singular realization of a CW -complex in terms of Adams cocompletion in a suitable category with a suitable set of morphisms.

**Satyanarayana Bhavanari, Syam Prasad Kuncham and
Venkata Pradeep Kumar Tumurukota**

ON IFP N -GROUPS AND FUZZY IFP IDEALS 11-19

Abstract: In this paper we introduces the notions of IFP N -group and fuzzy IFP ideal, where N is a zero symmetric right near-ring. For an IFP N -group G in which every monogenic N -subgroup has $ACCI$, it is proved that there exists an element $g \in G$ such that $(0: g)$ is a prime ideal of N . We obtained some consequences and presented related examples. We also obtained a result on IFP $M_n(N)$ -group $M_n(N)$, where $M_n(N)$ is the matrix near-ring. Some interesting result on fuzzy IFP ideals in

near-rings were also proved.

T. P. Johnson

ON LATTICES OF L -TOPOLOGIES

21-26

Abstract: We study the lattice structure of the set of all L -topologies on a given set X . It is proved that the lattice of L -topologies is not complemented. Some other properties of the lattice $S_{\tau,L}$, the set of all L -topologies defined by families of (completely) Scott continuous function on X are discussed.

Indrajit Lahiri

AN ANALOGUE OF THE SECOND MAIN THEOREM OF VECTOR
MEROMORPHIC FUNCTIONS FOR MOVING TARGETS

27-33

Abstract: We prove an analogue of the second main theorem with moving targets for vector meromorphic functions having few poles.

Liu Lanzhe

A SHARP ESTIMATE FOR MULTILINEAR LITTLEWOOD-PALEY
OPERATOR

35-46

Abstract: We establish a sharp estimate for multilinear Littlewood-Paley operator. As application, we obtain the weighted norm inequalities and $L \log L$ type estimate for the multilinear operator.

Jin-Lin Liu and Shigeyoshi Owa

SOME FAMILIES OF MEROMORPHIC MULTIVALENT FUNCTIONS
INVOLVING CERTAIN LINER OPERATOR

47-62

Abstract: Let \sum_p denote the class of functions of the form $f(z) = z^{-p} + \sum_{k=0}^{\infty} a_k z^k$ ($p \in N = \{1, 2, 3, \dots\}$) which are analytic and p -valent in the punctured disc $D = \{z : 0 < |z| < 1\}$. We introduce and study some new families of meromorphic multivalent functions defined by certain linear operator. A number of useful characteristics of functions in these families are obtained. In particular, some properties of neighborhoods of functions in these families are given.

R. Manjini

SOME CLASSES OF MEROMORPHIC FUNCTIONS WITH POSITIVE
COEFFICIENTS

63-78

Abstract: Let \sum_p denote the class of functions of the form

$$f(z) = \frac{a_{-1}}{z} + \sum_{m=1}^{\infty} a_m z^m \quad (a_m \geq 0, a_{-1} > 0)$$

which are analytic in the annulus $D = \{z : 0 < |z| < 1\}$. Let $\sum_{p,1}$ and $\sum_{p,2}$ denote subclasses of \sum_p satisfying $f(z_0) = 1/z_0$ and $f'(z_0) = -1/z_0^2$ ($-1 < z_0 < 1, z_0 \neq 0$), respectively. Properties of some subclasses of $\sum_{p,1}$ and $\sum_{p,2}$ are investigated and sharp results are obtained. Also a new characterization for certain subclass of \sum_p is proved.

Zoran D. Mitrović

SIMULTANEOUS APPROXIMATION FOR MULTIVALUED
MAPPINGS

79-85

Abstract: In the paper, some results on simultaneous approximation for convex multivalued mappings are given. These results are generalizations of the Ky Fan best approximation theorem and a generalization of the D. Delbosco results. Some results on coincidence points are also given.

P. N. Natarajan

MORE ABOUT (\overline{N}, p_n) METHODS IN NON-ARCHIMEDEAN
FIELDS

87-100

Abstract: In this paper K denotes a complete, non-trivially valued, non-archimedean field. Infinite matrices and sequences have entries in K . We prove some results regarding the (\overline{N}, p_n) methods of summability or the weighted means in such a field K , introduced earlier by the author.

Swadheenananda Pattanayak and Sabita Sahoo

FRACTIONAL DERIVATIVE OF RANDOM FOURIER-STIELTJES
SERIES

101-109

Abstract: Let $X(t, w)$ be a symmetric stable process of index $\alpha, 1 < \alpha \leq 2$ and let $f \in L^p[0, 2\pi], p \geq \alpha$. We establish that the series $\sum \frac{a_n A_n}{(in)^\beta} e^{int}$, where $a_n = \frac{1}{2\pi} \int_0^{2\pi} f(t) e^{-int} dt$ and $A_n = \frac{1}{2\pi} \int_0^{2\pi} e^{-int} dX(t)$ converges in probability to the stochastic integral $\frac{1}{2\pi} \int_0^{2\pi} f_\beta(t-u) dX(u, w)$, where f_β is the fractional integral of order β of the function f for $\frac{1}{p} < \beta < 1 + \frac{1}{p}$. We define fractional derivative of the sum $\sum_{n=-\infty}^{\infty} a_n A_n e^{int}$ of order β for

a_n and A_n as defined above and $\frac{1}{p} < 1 - \beta < 1 + \frac{1}{p}$. A sufficient condition for existence of fractional derivative is then found out.

Lucyna Rempulska, Mariola Skorupka and Zbigniew Walczak

ON SOME OPERATORS OF SZÁSZ-MIRAKYAN TYPE

111-128

Abstract: We study the degree of approximation of functions from exponential weighted space of functions of one two variables by certain operators of the Szász-Mirakyan type.

Stevo Stević

A NOTE ON THE GENERALIZED CESÀRO OPERATOR ON
BERGMAN SPACES

129-136

Abstract: In this note we show that the adjoint operator of the generalized Cesàro operator is bounded on the weighted Bergman spaces \mathcal{B}_α^p if and only if $\alpha + 2 < p$.
