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#### of Mathematics

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### CONTENTS WITH ABSTRACT

## Jin-Lin Liu

Some properties of certain multivalent analytic FUNCTIONS ASSOCIATED WITH CERTAIN INTEGRAL OPERATOR

> Abstract: Making use of certain integral operator, we introduce some new classes of multivalent analytic functions and present a systematic investigation of the various important properties of these classes. In terms of the familiar concept of neighborhoods of analytic functions, considered earlier by Goodman and Ruscheweyh, we prove several inclusion relations associated with the  $\delta$ -neighborhoods.

#### K. R. Vasuki and B. R. Srivatsa Kumar

EVALUATIONS OF THE RAMANUJAM-GÖLLNITZ-GORDON CONTINUED FRACTION H(q) BY MADULAR EQUATIONS 275 - 300

> Abstract: As a sequel to some works of Chan and Huang [2] we evaluate  $H(e^{-\pi\sqrt{n}})$  for certain values of n. The required modular identities are also obtained.

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#### Ennis Rosas and Carlos Carpintero

 $(\alpha, \beta)$ - $\gamma$ -semi open sets and some new generalized SEPARATION AXIOMS

301-316

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**Abstract:** Let  $(X, \tau)$  be a topological space and  $\alpha, \beta, \gamma : P(X) \to P(X)$  be operators associated with  $\tau$ . We introduce the concept of  $(\alpha, \beta) - \gamma$ -semi open sets and new generalized forms of separations by  $(\alpha, \beta) - \gamma$ -semi open sets. Also, we analyze the relationship with some well known separation notions.

#### S. C. Arora, Gopal Datt and Satish Verma

Multiplication operators on Lorentz spaces 317-329

**Abstract:** The invertible, compact and Fredholm multiplication operators on Lorentz spaces L(p,q),  $1 , <math>1 \le q \le \infty$  are characterized in this paper.

#### R. D. Mehta and H. B. Modi

THE NUMBER OF ISOMETRIES, QUASI-ISOMETRIES, PARTIAL ISOMETRIES AND NORMAL PARTIAL ISOMETRIES IN CERTAIN MATRIX ALGEBRA 331-345

> **Abstract:** In this paper we find the number of isometries, quasiisometries, partial isometries and normal partial isometries in the matrix algebra  $M_2(Z_p)$  for any prime p.

## Biswanath Garai, Chhanda Bandyopadhyay and Shyamapada Modak

TOPOLOGICAL PROPERTIES VIA IDEALS 347-357

**Abstract:** The aim of this paper is to study known topological properties using ideals and to characterize *I*-open sets in terms of *I*-dense sets.

#### S. Arumugam and R. Kala

MANGER SETS IN GRAPHS

Abstract: An independent set S in a graph G with  $|S| \ge 2$  is a *Menger set* if the maximum number of internally disjoint paths joining the vertices of S equals the minimum number of points separating S. The largest cardinality of a Menger set in G is denoted by m(G). In this paper we characterize unicyclic graphs in which every independent set is a Menger set. We also construct several classes of graphs in which every independent set is a Menger set and also classes of graphs with  $m(G) = \beta_0(G)$  where  $\beta_0(G)$  is the independence number of G.

### S. Elumalai and B. Baskaran

 $(\alpha, \beta)$ -orthogonality and a characterization of 2-inner product spaces 373-381

**Abstract:** In this paper we extend the notion of  $(\alpha, \beta)$ -orthogonality in the context of 2-inner product spaces.

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