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**Akrur Behera and Sandhya Rani Mohapatra**

CATEGORY OF FRACTIONS AND ACYCLIC SPACES 143-158

**Abstract:** Given an acyclic space, Dror has given a general procedure for constructing a Postnikov-like tower of acyclic spaces which successively approximate the given space. In this note it is shown that the acyclic tower can be obtained through a general categorical completion process due to Adams. More precisely, it is shown that if  $S_n$  denotes the set of all  $(n + 1)$ -equivalences in the homotopy category of based  $CW$ -complexes which induce isomorphisms in reduced integral homology, then the generalized Adams completion of an acyclic space with respect to  $S_n$  is the  $n$ -stage of the acyclic tower; it is done in the context of a Serre class of abelian groups.

**Ajay K. Sharma, Kuldip Raj and Sunil K. Sharma**

PRODUCTS OF MULTIPLICATION COMPOSITION AND  
DIFFERENTIATION OPERATORS FROM  $H^\infty$  TO WEIGHTED  
BLOCH SPACES 159-179

**Abstract:** Let  $\psi$  be a holomorphic function on the open unit disk  $\mathbb{D}$  and  $\varphi$  a holomorphic self-map of  $\mathbb{D}$ . Let  $C_\varphi$ ,  $M_\psi$  and  $D$  denote the composition, multiplication and differentiation operator, respectively. We characterize boundedness and compactness of linear operators induced by products of these operators from

$H^\infty$ ,  $\mathcal{B}$  and  $\mathcal{B}_0$  to weighted Bloch spaces.

**M. K. Aouf, A. A. Shamandy, A. O. Mostafa and A. K. Wagdy**

SOME PROPERTIES FOR CERTAIN SUBCLASSES OF ANALYTIC  
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**Abstract:** In this paper, we study many results for a new class of analytic functions  $TD(b, \mu, \gamma, \beta)$  defined by Srivastava and Attiya operator  $J_b^\mu(f)(z)$ .

**Saurabh Porwal and K. K. Dixit**

ON A NEW SUBCLASS OF SALAGEAN-TYPE HARMONIC  
UNIVALENT FUNCTIONS 199-210

**Abstract:** Making use of Salagean derivative, we have introduced a new subclass of harmonic univalent functions. Coefficient estimates, distortion bounds, extreme points, convolution condition and convex combination for functions belonging to this class are determined. The results obtained for the class reduce to the corresponding several known results are briefly indicated.

**S. N. Mishra and Rajendra Pant**

SEQUENCES OF  $\varphi$ -CONTRACTIONS AND STABILITY OF FIXED  
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**Abstract:** Stability results for a sequence of  $\varphi$ -contractions with a variable domain and using Barbet-Nachi type convergence are obtained. The results obtained herein generalize certain well-known results.

**Dinamrico P. Pombo Jr.**

BORNOLOGICAL GROUPS

225-258

**Abstract:** In this paper the notion of a bornological group is introduced and the fundamental constructions in the class of bornological groups are discussed. In particular, the existence of arbitrary projective limits and arbitrary inductive limits of bornological groups is ensured. In the context under consideration, general results concerning projective limits and inductive limits as well as an isomorphism theorem are established.

**Ahmad H. A. Bataineh**

SOME RESULTS ON DIFFERENCE SEQUENCE SPACES

259-270

**Abstract:** In this paper, we define the sequence spaces :  $c_0(M, \Delta_{(m,u)}, p, q, s)$ ,  $(M, \Delta_{(m,u)}, p, q, s)$  and  $l_\infty(M, \Delta_{(m,u)}, p, q, s)$ , where for any sequence  $x = (x_k)$ ,  $\Delta_{(m,u)}x_k = (\Delta_{(m,u)}x_k)_{k=1}^\infty = (u_k x_k - u_{k+m} x_{k+m})_{k=1}^\infty$ . We also examine some inclusion relations between these spaces and discuss some properties and results related to them.

**C. J. Mozzochi**

A REMARK ON A PAPER OF LUO AND SARNAK

271-272

**Abstract:** In this paper we correct an error in an important paper of Luo and Sarnak.