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CONTENTS WITH ABSTRACT

Abstract: For a compact Kähler manifold, the de Rham cohomology and the Dolbeault cohomology are related via the Hodge decomposition theorem. In this paper we use the Leray and Frölicher spectral sequences to study the cohomology structure of the non-compact 1-convex Kähler manifolds by purely algebraic method. We prove that for a 1-convex manifold, if the fibre dimensions of its Remmert reduction are less than k, then the associated Frölicher spectral sequence degenerates at E_{k+2}. As a corollary we calculate the de Rham cohomology of a Stein manifold in a very simple way, and conclude that the Hodge decomposition theorem is not true for a non-compact 1-convex Kähler manifold which even have plenty of holomorphic functions.

Abstract: New general results concerning absolute summability of an infinite series are presented. other special cases are also deduced.

Abstract: This paper looks at the influence of magnetic field on the peristaltic flow of a Johnson-Segalman fluid in an inclined asymmetric porous channel under the supposition of long wave length. The asymmetry is produced by choosing the peristaltic wave train on the walls to have different amplitudes and phase. Both analytical and numerical solutions are presented. The analysis for the analytical solution is carried out for small Weissenberg number. The closed form solutions have been obtained for the stream function, axial velocity and the longitudinal pressure gradient. Numerical calculations are carried out for the pressure rise. The features of the flow characteristics are analyzed by plotting graphs for different values of emerging parameters and discussed in detail.

Abstract: In this paper, we derive several interesting subordination results of analytic functions defined by Dziok-Srivastava operator.

Abstract: Throughout the present paper, K denotes a complete, non-trivially valued, non-archimedean field. The entries of sequences, series and infinite matrices are in K. In the present paper, we prove some nice properties of regular Nörlund methods in K.

Abstract: In 1930, E. T. Bell discovered the identity

$$\sum_{k=0}^{2n}(-1)^k\binom{2n}{k}\binom{2n+k}{k}\binom{2k}{k}2^{4n-2k}=\binom{2n}{n}^2.$$

A simple generalization of Bell's identity occurs by inserting an integer parameter m into the factor $\binom{2n+k}{k}$, namely let $\binom{2n+k}{k}$ become $\binom{2n+k+m}{k}$. Such a sum is called a one parameter Bell sum. This paper utilizes three different combinatorial techniques to calculate closed forms for the family of one parameter Bell sums.

Abstract: Recent results of S. A. Naimpally contained in his paper "When is a Function Continuous?" are generalized to convexity-preserving functionals defined on a convexity topological space.

Abstract: For $0 < p < 1$, conditions are established for certain vector singular integral operators be bounded from product Hardy space $H^p(\mathbb{R} \times \mathbb{R})$ to $L^p(\mathbb{R}^2)$. The operators in question are similar to some bounded operators on $L^P = L^{p_2}$ (L^{p_1}) spaces, with mixed norm of Benedek-Panzone, which are known in the literature. An application of the main result is also given.

Abstract: The object of the present paper is to study *decomposable weakly pseudo quasi-conformally symmetric manifolds* with an interesting example.

Abstract: Very general multivariate radial mixed Caputo fractional Ostrowski inequalities are presented. One of them is proved sharp and attained. Estimates are with respect to $\|\cdot\|_p, 1 \leq p \leq \infty$.