CONTENTS

Abstract: This research paper deals with the study of "unsteady laminar axi-symmetrical flow of viscous incompressible fluid with constant viscosity, through two concentric, infinitely long circular porous cylinders with injection and suction which are in rest" and is focused on three physical quantities pressure, radial velocity and axial velocity in different conditions of permeability of porous media, electric and magnetic forces in absence of tangential flow. Equations (3.2.13), (3.2.20) and (3.2.23) are presenting pressure formulae and equations (3.3.12), (3.3.13), (3.4.9), (3.4.10), (3.4.11) are presenting axial velocity formulae while equation (3.2.26) has shown the radial velocity.

Abstract: Let $f : \mathbb{R} \longrightarrow \mathbb{R}$ be special Denjoy integrable in some neighbourhood of $x \in \mathbb{R}$. Then f is said to be Laplace smooth at x if $\lim\limits_{s \to \infty} s^2 \int_0^\delta e^{-st}[f(x+t) + f(x-t) - 2f(x)]dt$ exists for some $\delta > 0$ and equal to zero. It is shown that Laplace smoothness is more general than smoothness. Some properties of Laplace smooth functions are studied here.

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Prem Chandra and Balwant Singh Thakur

Abstract: In this paper, we apply modified absolute Nörlund means with wights (Das [6]) to study absolute Nörlund summability of conjugate series with multipliers and investigate some necessary and sufficient conditions, imposed upon the generating function of the conjugate series of a Fourier series,to obtain the absolute Nörlund summability of conjugate series of a Fourier series, as well as best possible summability multipliers in certain sense. As a consequence, we get some new results.

Vaijanath L. Chinchane and Deepak B. Pachpatte

Abstract: In the present paper, we establish some new integral inequalities for convex functions by using the Hadamard fractional integral operator and other some fractional inequalities.

N. Ahmed and A. H. Sheikh

Abstract: An attempt has been made to study the problem of an oscillatory MHD mass transfer flow through a channel filled with porous medium. Fluid slip is imposed at the lower wall and the uniform magnetic field is assumed to be applied normal to the walls of the channel. The governing equations are solved in closed form. The effects of velocity slip (γ), Solutal Grashof number (Gm), Schmidt number (Sc), chemical reaction parameter (Cr), magnetic field (M) and radiation parameter (N) on the flow and transports characteristics are studied

through graphs and the result is physically interpreted.

P. V. Danchev

Abstract: Suppose α is an ordinal and G is a reduced Abelian p-group such that $G/p^\alpha G$ is totally projective. Then any projection of $p^\alpha G$ can be extended to a projection of G. This extends a similar result for direct sums of countable groups due to Hill-Megibben (*Math. Ann., 1968*).

Gregory S. Adkins

Abstract: We present a general approach for evaluating a large variety of three-dimensional Fourier transforms. The transforms considered include the useful cases of the Coulomb and dipole potentials, and include situations where the transforms are singular and involve terms proportional to the Dirac delta function $\delta(\vec{r})$. Our approach makes use of the Rayleigh expansion of $\exp(i\vec{p}\cdot\vec{r})$ in terms of spherical Bessel functions, and we study a number of integrals, including singular integrals, involving a power of the independent variable times a spherical Bessel function. We work through several examples of three-dimensional Fourier transforms using our approach and show how to derive a number of identities involving multiple derivatives of $\frac{1}{r}$, $\frac{1}{r^2}$, and $\delta(\vec{r})$.

Sinan Ercan and Çiğdem A. Bektaş

ON THE SPACES OF λ^2-BOUNDED AND λ^2-ABSOLUTELY p-SUMMABLE
SEQUENCES   247-262

Abstract: In this paper, we give the notion of λ^2-boundedness. We examined some topological properties of the spaces of λ^2-bounded and p-absolute convergence type of λ^2 sequences. We also give some inclusion relations concerning with these spaces.

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