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## CONTENTS



**Abstract:** An analytical solution to the problem of an incompressible viscous electrically conducting radiative fluid past a continuously moving vertical porous plate taking into account the effects of thermal diffusion and diffusion thermo is presented. A uniform magnetic field is assumed to be applied normal to the plate directed into the fluid region. Expressions for the dimensionless velocity field, temperature field, concentration field, and the skin-friction, Nusselt number and Sherwood number at the plate are obtained. The effects of various similarity parameters namely the Schmidt number, Hartmann number, Soret number and the Dufour number on the above fields are investigated graphically and the results are discussed and interpreted. It is observed that the viscous drag at the plate decreases due to application of the magnetic field and under the effect of thermal diffusion as well as diffusion thermo.

**Abstract:** The notion of $I^{\lambda}$-statistical convergence of a sequence was first introduced by Savas and Das [17]. In this paper we introduce and investigate the concept of rough $I^{\lambda}$-statistical convergence of sequences in normed linear spaces. We also define the set of all rough $I^{\lambda}$-statistical limits of a sequence and discuss some topological properties of this set.



**Abstract:** Explicit expression for all the $2n(d+1)+4$ primitive idempotents in the ring $R_{2p^nq} = \frac{GF(l)[x]}{<x^{2p^nq}-1>}$, where $p, q, l$ are distinct odd primes such that $o(l)_{2p^n} = \phi(2p^n), o(l)_q = \phi(q)$ and $\gcd(\frac{\phi(2p^n)}{d}, \frac{\phi(q)}{d}) = 1$, $p$ does not divide $q-1$, are obtained. In this paper the results of [9] and [7] have been extended.



**Abstract:** In this article we prove that the Cauchy problem associated to a model of waves in a viscous fluid, proposed in [2], is globally well posed. We do this in an intuitive way using Fourier theory and in a fine version using Semigroups theory, getting $H^{\infty}$ regularity. Also, we analyze the behavior of solutions of Cauchy problems to one parameter and prove that their limit is solution

of a Cauchy problem whose associated semigroup is the restriction of a group.



**Abstract:** In this paper we make a new approach to extend the application area of $\mathcal{I}$-statistical convergence usually used in sequence of real numbers to the theory of expectation. We introduce these concepts in expectation of $\mathcal{I}$-statistical convergence in the $\gamma^{\text{th}}$-mean of order $\alpha$ (where $\gamma > 0$ and $0 < \alpha \leq 1$), lacunary $\mathcal{I}$-statistical convergence in the $\gamma^{\text{th}}$-mean of order $\alpha$ and $\lambda$-$\mathcal{I}$-statistical convergence in the $\gamma^{\text{th}}$-mean of order $\alpha$. Basic properties and interrelations of above mentioned three distinct convergences are investigated and make some observations about these classes



**Abstract:** The aim of this paper is to discuss the properties of soft neighbourhoods of the null vector $0 \in E$ with the concepts of balanced and absorbing soft sets in a soft topological vector spaces. Here we also discuss the concepts of local soft base, closure and interior of a soft set in a soft topological vector spaces.

**A. Garai and S. Ray**



**Abstract:** Let $f : (a, b) \longrightarrow R$ be a continuous function with the property that the $n$th symmetric Laplace derivative $SLD^n f$ exists on $(a, b)$. We show that under certain smoothness conditions the Zahorski and Denjoy properties hold for $SLD^n f$, and the Denjoy property holds for the $n$th Laplace derivative $LD_n f$.

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