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CONTENTS

Abstract: We introduce the *expansive complexity* for continuous flows on compact metric spaces. This notion is motivated by [18]. We study its relation with the discrete case and show that every flow with positively expansive measures has expansive complexity but not conversely. We prove that flows with expansive complexity cannot be equicontinuous. Finally, we obtain that every homeomorphism with expansive complexity supports positively meagre-expansive measures.

Abstract: In this paper, we discuss the existence and uniqueness of points of coincidence and common fixed points for graph preserving mappings in the framework of m-metric spaces. As some consequences of our results, we obtain fixed points for expansive type mappings and several recent results in this setting. Finally, we provide some illustrative examples to examine the validity of our results.

Abstract: In the present work some fractional integral inequalities for the product of a h-logarithmic convex function $f : [a, b] \longrightarrow R$ with the operator $T^{-}_{a+b}f$, obtained by ranging its domain in inverse form, for the product of two h-logarithmic convex functions being one of them symmetric with respect to the middle point in the definition interval, and for the geometric mean function of the functions f and $T^{-}_{a+b}f$, are established using fractional integral operator defined by R. K. Raina. From the results obtained, the integral inequalities for the Riemman-Liouville, Prabhakar, Salim fractional operators and the Riemman classical integral are deduced.

Abstract: In this paper, we investigate the configurations of Herman rings for a special class M_0 of meromorphic functions having at least one omitted value. We show that the possible number of configurations of a 5-periodic Herman rings of a function in M_0 is six. Also, we prove that the number of 5-cycles of Herman rings of a function in M_0 is at most one. Further, we present a result about the non-existence of a 3-periodic Herman rings and a 5-periodic Herman rings simultaneously. Several examples of transcendental meromorphic functions which do not have any Herman rings are discussed. Finally, we conclude this paper by posing a problem for future research.

Abstract: In this paper, following the work of Bjorland and Schonbek [3] we prove the stability of steady state solutions with finite energy for magnetohydrodynamic (MHD) equations in the whole space under certain conditions on an external force f.

Abstract: The aim of this paper is to study oscillation criteria for second order nonlinear difference equations with an advanced argument. Both the comparison technique and a Riccati transformation are used to establish new oscillation criteria for the equation being studied. The criteria obtained improve, simplify, and complement results currently in the literature. The results are illustrated by some examples.

Abstract: In this paper, we construct the type 2 degenerate Daehee numbers and polynomials and their higher-order analogues, and investigate some properties of these numbers and polynomials. In addition, we give some new identities and relations between the type 2 degenerate Daehee polynomials and degenerate Bernoulli polynomials of the second kind, an identity involving higher-order analogues of those polynomials and the degenerate Stirling numbers of the second kind, and an expression of higher-order analogues of those polynomials in terms of higher-order type 2 degenerate Bernoulli polynomials and the degenerate Stirling numbers of the first kind.

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