Indian Journal of Mathematics Special Volume Dedicated to Professor Billy E. Rhoades

Volume 56, No. 2, 2014

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Some fixed point theorems in generalized ultrametric spaces 189-196

Abstract: In this paper, two important results of Petalas and Vidalis (Proc. Amer. Math. Soc. 118(1993) 819–821) which present positive solutions to the well known problem that neither non-expansive nor contractive mappings of a complete metric space have a fixed point, are extended to gneralized ultrametric spaces.

Ekrem Savas

On asymptotically $I^{\lambda}\text{-statistical equivalent sequences}$ of order α

Abstract: This paper presents the following definition which is a natural combination of the definition for asymptotically equivalent of order α , where $0 < \alpha < 1$, \mathcal{I} -statistically limit, and λ -statistical

convergence. The two nonnegative sequences $x = (x_k)$ and $y = (y_k)$ are said to be asymptotically \mathcal{I}^{λ} -statistical equivalent of order α to multiple L provided that for every $\varepsilon > 0$, and $\delta > 0$,

$$\{n \in \mathbb{N} : \frac{1}{\lambda_n^{\alpha}} | \{k \in I_n : |\frac{x_k}{y_k} - L| \ge \varepsilon\} | \ge \delta\} \in \mathcal{I},$$

(denoted by $x \stackrel{S_{\lambda}^{L(I)^{\alpha}}}{\sim} y$) and simply asymptotically \mathcal{I}^{λ} -statistical equivalent of order α if L = 1. In addition, we shall also present some inclusion theorems.

Aleksandar S. Cvetkovic, Stojan Radenovic, Suzana Simic and Marija P. Stanic

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Abstract: In this paper we introduce the concept of a generalized φ -contraction for four mappings in solid cone metric spaces. Our results generalize, extend, unify, enrich and complement recent common fixed point results established by Chi-Ming Chen, Tong Huei Chang [Chi-Ming Chen, Tong-Huei Chang, Common fixed point theorems for a weaker Meir-Keeler type function in cone metric spaces, Applied Mathematics Letters 23 (2010) 1336-1341], I. Aranđelović et al. [I. Aranđelović, Z. Kadelburg, S. Radenović, Boyd-Wong-type common fixed point results in cone metric spaces, Applied Mathematics and Computation **217** (2011) 7167-7171] and A. Razani et al. [A. Razani, V. Rakočević, Z. Goodarzi, Generalized φ -contraction for a pair of mappings on cone metric spaces, Applied Mathematics and Computation **217** (2011) 8899-8906]. Some examples are included which illustrate the cases when new results can be applied while old one cannot.

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Abstract: We look for common fixed subsets of several maps on a 2-metric space, aiming for fixed points or fixed lines. The properties satisfied by the fixtures depend on the form of the triangle contractivity condition which is supposed, so for example in a weaker setting one of the possibilities is a subset of a line with small diameter. This is illustrated by some examples.
