CONTENTS

   Abstract: In this paper, we obtain coincidence and fixed point theorems for single-valued and multivalued maps satisfying Greguš type hybrid contractive conditions. Further, we obtain a common fixed point theorem for Greguš type maps using a strict contractive condition and (E.A) property. Some special cases are discussed.

   Abstract: The purpose of this paper is to obtain two common fixed point theorems for weakly compatible self-maps satisfying the property (E.A) using implicit relation in probabilistic metric spaces. Our results do not require either the completeness of the space or continuity of the maps.

Abstract: In this paper unresolved questions about semi-generalized closed sets, semi-generalized open sets, and semi-$T_{1/2}$ spaces are answered and each of semi -generalized closed sets, semi-generalized open sets, and semi-$T_{1/2}$ spaces are further investigated.

Abstract: A model of two different semi-infinite half-spaces of heat conducting solids in welded contact is studied in the present paper. A reflection and refraction phenomenon at an interface is studied for obtaining the reflection and refraction coefficients of various reflected and refracted waves, when a SV wave is incident. The numerical computations of these coefficients are carried out for a particular model. The effects of hydrostatic initial stresses are observed on the coefficients of reflected and refracted waves and are shown graphically for a certain range of angle of incidence.

Abstract: The steady flow of an electrically conducting, incompressible couple stress fluid in a narrow gap between two concentric rotating vertical cylinders, with porous lining on inside of outer cylinder, under an imposed axial magnetic field is considered. Beavers and Joseph slip condition is taken at the porous lining boundary. The velocity profile and the coefficient of skin friction on the cylinders are calculated, under vanishing couple stresses of type A condition or super adherence condition of type B on the boundary. The effects of Hartmann number, the porous lining thickness parameter, couple stress parameters and Reynolds number on azimuthal velocity and the coefficient of skin friction on cylinders are depicted through graphs.

N. Tolou, S. A. Zahedi, M. Kazeminia and D. D. Ganji

Abstract: This paper deals with analytical analysis of nonlinear regularized long waves through homotopy perturbation method (HPM) and homotopy analysis method (HAM). The main contribution of the proposed approach is twofold. First, it develops the analytical solution of regularized long wave (RLW) equations. Afterwards, the propagation of RLW has been obtained directly from the governing solutions that have been obtained in first part. Therefore, some illustrative examples have been presented in order to asses the benefits of this investigation, then, the results have been shown and compared graphically. In clear conclusion, both methods are efficient and capable to obtain the analytical approximate solution of RLW equations while these solutions can straightforwardly show some facts of the described process deeply such as the propagation. These methods can be easily extended

to other nonlinear wave equations and so can be found widely applicable in this field of science.

W. T. Sulaiman

Abstract: New general integral inequalities are presented covering many known and new results in this direction via simple methods.

Rajneesh Kumar, Sanjay Kumar and Aseem Miglani

Abstract: The present investigation is concerned with axi-symmetric deformation in fluid saturated incompressible porous medium. Laplace and Hankel transform techniques are used to solve the problem. As an application of the approach concentrated source / source over the circular region have been taken. The integral transforms have been inverted by using a numerical inversion technique to obtain the components of stresses and pore pressure in physical domain. The results concerning these quantities are given and illustrated graphically to depict the effect of pore pressure. A particular case of interest has been deduced from the present investigation.

Dibyendu Banerjee and Ratan Kumar Dutta

Abstract: In this paper we study growth of iterated entire functions and generalize results of K. Niino and N. Suita.

R. Abo-Zeid

Abstract: In this paper, we investigate the global stability, periodic nature, oscillation and the existence of unbounded solutions to the difference equation

$$x_{n+1} = \frac{Ax_{n-2r-1}}{B + C\prod_{i=l}^{k} x_{n-2i}}, \qquad n = 0, 1, 2, \cdots,$$

where A, B, C are nonnegative real numbers and l, r, k are nonnegative integers, such that $l \leq k$ and $r \leq k$.

Chen Yue Liu Lanzhe

Abstract: In this paper, we will study the continuity of the multilinear commutator generated by the singular integral operators with non-smooth kernels and Lipschitz functions on Triebel-Lizorkin space, Hardy space and Herz-Hardy space.

Francesco G. Russo

Some open questions on a result of B. H. Neumann   377-386

Abstract: A subgroup K of a group G is called almost normal in G if it has finitely many conjugates in G. The influence of these subgroups is strong on the group structure. Indeed, B. H. Neumann proves in the 1955 that $|G : Z(G)|$ is finite if and only if each K is almost normal in G. Many authors have successively generalized this result and the present survey makes the point of the situation, illustrating a new perspective for wider generalizations.

V. Srinivasan and R. Deepa

On generalized Nörlund methods of double sequences in non-archimedean fields   387-398

Abstract: The aim of this paper is to introduce generalized Nörlund methods of double sequences in a complete, non-trivially valued, non-archimedean field and prove a few theorems on generalized Nörlund methods of double sequences in such fields.

Addendum   399-402

This supplies six figures referred in the following paper:

D. C. Sanyal, K. Das and S. Debnath

On relative coefficients of viscosity of blood through narrow vessel

Bulletin of the Allahabad Mathematical Society, T. Pati Memorial Volume, Vol. 25, Part 1, (2010), pp. 137-147.

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