Bulletin of the Allahabad Mathematical Society

Volume 36, Part 2, 2021

CONTENTS

H. Khabazian

The characterization of structural matrix rings over a division ring 113-135

Abstract: In [7] and also in [8], we introduced conditions under which a ring is isomorphic to a structural matrix ring over a division ring. In this paper we show that in both cases, the converses are also valid. Also, we represent different method from one used in [14] to determine the prime ideals and the prime radical of structural matrix rings on any arbitrary ring.

Liaqat Ali Khan, Nicola Fabiano, Nikola Mirkov and Stojan Radenović

FIXED POINT THEOREMS VIA STRONG CONVERGENCE OF ITERATES OF ALMOST CONTRACTIVE TYPE MAPPINGS IN *p*-NORMED SPACES 1.

137 - 152

Abstract: In this paper, we present some results on the strong convergence of Mann iterates of almost contractive mappings. The presented results extend some recent results from the setting of Banach spaces to *p*-normed spaces, which are not necessarily locally convex. In addition, we see that our results are independent of the setting of convex metric spaces. Finally, we include several remarks and examples/counter-examples to justify our results.

Rachid Boukoucha

ON THE CLASS OF TWO DIMENSIONAL DIFFERENTIAL SYSTEMS 153-161

Abstract: In this paper, we are interested in studying the existence of the first integral and we determine sufficient conditions for a polynomial differential systems to possess a limit cycles explicitly given. Concrete example exhibiting the applicability of our result is introduced.

M. Kamarujjama and Owais Khan

ON CERTAIN INTEGRAL TRANSFORMS AND EXTENDED VOIGT FUNCTIONS 163-177

Abstract: In this paper, we investigate integral and series representations of extended Voigt function $\Omega^b_{\mu,\nu,c}(x, y, z)$, which are especially useful in situations when the parameters μ, ν, b and c take particular values. Obtained results are providing an interesting and useful unification in terms of familier special functions of mathematical physics. A set of partly bilateral and partly unilateral representations are also considered.

Predrag Vuković

The refinement of local fractional Hölder's inequality and its applications

179-188

Abstract: By using the improved Young inequality and local fractional calculus, a refinement of local fractional Hölder inequality is given. As an application, a multidimensional version of local fractional Hilbert-type inequalities is obtained.
