CONTENTS

Abstract: In this paper, we define and study the differential geometry of CR submanifolds of a golden semi-Riemannian space form. We obtain the sectional curvature of CR submanifolds of a golden semi-Riemannian space form and prove that a $D^{\perp}$-minimal CR-submanifold of a golden semi-Riemannian space form is $D^{\perp}$-totally geodesic if $K_M(X \wedge Y) = \frac{c}{4}$. We also construct an example of a CR-submanifold of a golden semi-Riemannian manifold.

Abstract: We present some new results on stability or continuity of fixed points for quasi-contractions on variable domains in metric spaces. We also discuss a couple examples to illustrate our results. Finally, present an application of our results to integral equations.

Abstract: Let us consider K be a complete ultametric algebraically closed field and $A(K)$ be the K-algebra of entire functions on K. In this paper, we introduce the notation of the relative $L^*[t]$-order ($L^*[t]$-lower order) and then established some growth properties of p-adic entire functions on the basis of generalized relative $L^*[t]$-order ($L^*[t]$-lower order). We give some examples which validates the theorem stated.

Abstract: Several generalized fixed point theorems with variations in N-cone metric space domains have been presented in this article. In addition, several more fixed point results are obtained for different forms of contraction mappings with closed graphs in N-cone metric spaces. Also, some examples are provided to demonstrate our main results.

Abstract: In this paper, we give an affirmative answer to a fixed point problem of Górnicki.

Abstract: In this study, the author introduced a new mix type of polynomials as a connection between generalized Bernoulli polynomials and poly Daehee polynomials, which they refer to as generalized Apostol-Bernoulli-based poly Daehee polynomials. Utilizing the generating function of the newly proposed polynomials, they explore specific special instances and useful ones, such as explicit and implicit summation formulae. Also, we discuss some special cases of it.

Abstract: In this article, a particular class of torsionfree simple modules of the multiparameter Quantum Symplectic algebra $K_{n,\Gamma}^{Q,R}(\mathbb{K})$ are classified. Especially, we use the results of De Concini and Processi to comment about the dimension of the simple modules over multiparameter Quantum Symplectic algebra and then construct the torsionfree simple modules assuming the multiparameters lie in a torsion subgroup of $\mathbb{K}^*$.

Abstract: We define Lawrence-Krammer representation of the pure braid group P_n on band generators. For $t = q^{-5/2}$ and $q^2 \neq 1$, we prove that the complex specialization of Lawrence-Krammer representation $P_4 \mapsto GL_6(\mathbb{Z}[q^{\pm 1}])$ is irreducible if and only if $q \neq e^{\pm \frac{2\pi i}{3}}$. A similar result for the pure braid group P_3 was done by Abdulrahim and Al-Tahan.

Abstract: In this article we present univariate and multivariate quantitative approximation by Kantorovich-Choquet type quasi-interpol-ation neural network operators with respect to supremum norm. This is done with rates using the first univariate and multivariate moduli of continuity. We approximate continuous and bounded functions on $\mathbb{R}^N$, $N \in \mathbb{N}$. When they are also uniformly continuous we have pointwise and uniform convergences, also L_p estimates. Our activation functions are induced by multiple general sigmoid functions.

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