CONTENTS

Abstract: The simple modules of $\mathbb{K}_{\mathcal{Q}}[x_1, \ldots, x_n]$ the coordinate ring of quantum affine space, are classified in the case, where $\mathcal{Q} = (q_{ij})$ is an $n \times n$ matrix with $q_{ii} = 1$ and $q_{ji} = q_{ij}^{-1}$, for all $1 \leq i, j \leq n$ under the assumption that the superdiagonal and the diagonals above the superdiagonal are constant and $\mathbb{K}$ is algebraically closed.

Abstract: In this paper, we introduce the class of modified (h, m)-convex functions, and establish some novel inequalities of Ostrowski type for functions whose n^{th} derivatives belong to this class of functions.

Abstract: In 1992, Michael R. Bacon gave an estimate for $d(G \otimes G)$ in terms of $d(G)$, when G is nilpotent of class two, where $d(G)$ is the minimal number of generators of G. In the present article, we give an estimate for $d(G \otimes \mathrm{Aut}_Z(G))$ in case G and $\mathrm{Aut}_Z(G)$ are $2_{\otimes}$-auto Engel groups, where $\mathrm{Aut}_Z(G)$ is the group of central automorphisms of G.

Abstract: The purpose of this article is to introduce typical KKM theoretic results on abstract convex spaces appeared in our previous works. Moreover, we introduce various types of KKM spaces and partial KKM spaces. Further, we introduce certain results due to ourselves on abstract convex metric spaces since 2006. Finally, we show that our KKM theory on abstract convex space or abstract convex metric spaces can be applied to a large number of examples of metric KKM spaces or metric partial KKM spaces.

Abstract: We present a series of left and right side Hardy type fractional inequalities under convexity in the setting of generalized Hilfer and Prabhakar fractional Calculi.

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φ-Classical prime and φ-classical primary elements in lattice modules   97-112

Abstract: Let M be a lattice module over a C-lattice L. Let $\phi\colon M \longrightarrow M$ be a function such that $\phi(N) \leq N$, for each $N \in M$. A proper element $P \in M$ is called a ϕ-classical prime element, if for each $X \in M, a, b \in L; abX \leq P$ and $abX \nleq \phi(P)$ implies $aX \leq P$ or $bX \leq P$ and a proper element $N \in M$ is called a ϕ-classical primary element, if for each $K \in M, a, b \in L; abK \leq N$ and $abK \nleq \phi(N)$ implies $aK \leq N$ or $b^n K \leq N$, for some positive integer n. In this paper, we obtain some characterizations of ϕ-classical prime and ϕ-classical primary elements in lattice modules.

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