عنوان مقاله:
(Non-Equivalent Norms on C^b(K

محل انتشار:
مجله تحریریه ی آنالیز ریاضی سهند, دوره 17, شماره 4 (سال: 1399)

تعداد صفحات اصل مقاله: 12

نویسنده:
Ali Reza Khoddami - *Faculty of Mathematical Sciences, Shahrood University of Technology, P. O. Box ۳۶۱۹۹۹۵۱۶۱-۳۱۶, .Shahrood, Iran*

خلاصه مقاله:
Let A be a non-zero normed vector space and let K=\overline{B_۱^{(۰)}} be the closed unit ball of A. Also, let \varphi be a non-zero element of A^* such that \Vert \varphi \Vert\leq ۱. We first define a new norm \Vert \cdot \Vert_\varphi on C^b(K), that is a non-complete, non-algebraic norm and also non-equivalent to the norm \Vert \cdot \Vert_\infty. We next show that for ۰\neq\psi\in A^* with \Vert \psi \Vert\leq ۱, the two norms \Vert \cdot \Vert_\varphi and \Vert \cdot \Vert_\psi are equivalent if and only if \varphi and \psi are linearly dependent. Also by applying the norm \Vert \cdot \Vert_\varphi and a new product `` \cdot '' on C^b(K), we present the normed algebra \left(C^{b\varphi}(K), \Vert \cdot \Vert_\varphi \right). Finally we investigate some relations between strongly zero-product preserving maps on C^b(K) .(and C^{b\varphi}(K

کلمات کلیدی:
Normed vector space, Equivalent norm, Zero-product preserving map, Strongly zero-product preserving map