

Brian Fisher, Adem Kiliçman, Blagovest Damyanov, J.C. Ault
On the non-commutative neutrix product $\ln x_+ \circ x_+^{-s}$

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Abstract: The non-commutative neutrix product of the distributions $\ln x_+$ and x_+^{-s} is proved to exist for $s = 1, 2, \dots$ and is evaluated for $s = 1, 2$. The existence of the non-commutative neutrix product of the distributions x_+^{-r} and x_+^{-s} is then deduced for $r, s = 1, 2, \dots$ and evaluated for $r = s = 1$.

Keywords: distribution, delta-function, neutrix, neutrix limit, neutrix product

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