## ON JENSEN'S INEQUALITY FOR POSITIVE LINEAR FUNCTIONALS

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## Abstract

We derive an inequality for the positive unital linear maps on matrices. A refinement of Jensen's inequality is obtained for positive linear functionals. This also gives an alternative proof of Jensen's inequality. The special cases and complementary inequalities are discussed.

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 $\label{thm:condition} \mbox{Key Words and Phrases}: \textit{Kadison's inequality, Unital linear maps, Hermitian matrices, Eigenvalues}.$ 

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