

## AN INTERPOLATION OF JENSEN'S INEQUALITY AND ITS APPLICATIONS TO MEAN INEQUALITIES

JADRANKA MIČIĆ HOT AND YUKI SEO

*Abstract.* In this paper, we show operator versions of the inequality due to Cho, Matić and Pečarić in connection to Jensen's inequality for convex functions. As applications, we obtain an interpolation of the weighted arithmetic-geometric mean inequality for the Karcher mean of positive invertible operators on a Hilbert space. Moreover, we obtain an interpolation between the quasi-arithmetic means.

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