

Notes on Schatten-2 Norm of Coherence

Yiyang Song, Yuanhong Tao^{1,2}

Department of Mathematics, Collage of Science, Yanbian University, Yanji, Jilin 133002

Abstract: The Schatten-2 norm of coherence is studied in this paper. Firstly, the Schatten-2 norms of coherence for some states are calculated, and their analytical formula are showed to be equal to the l_2 norm of coherence for these states. Then the Schatten-2 norms of coherence for maximally coherent states is discussed. Finally, the Schatten-2 norm of coherence is proved to be an illegitimate coherence measure using YZX framework, which is simpler than the precious method in [Phys. Rev. A. 93: 012110 (2016)].

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¹ Corresponding author: Yuan-hong Tao, E-mail: taoyuanhong12@126.com

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