

Ann. Funct. Anal. 5 (2014), no. 2, 74–79 ANNALS OF FUNCTIONAL ANALYSIS ISSN: 2008-8752 (electronic) URL:www.emis.de/journals/AFA/

NON-COMMUTATIVE PERSPECTIVES

EDWARD EFFROS¹ AND FRANK HANSEN^{2*}

We wish to dedicate this paper to Tsuyoshi Ando, whose pioneering work in matrix analysis profoundly influenced our research

Communicated by M. S. Moslehian

ABSTRACT. We prove that the non-commutative perspective of an operator convex function is the unique extension of the corresponding commutative perspective that preserves homogeneity and convexity.

¹ MATHEMATICS DEPARTMENT, UCLA, LOS ANGELES, CA 90015, USA. *E-mail address:* ege@math.ucla.edu

² INSTITUTE FOR INTERNATIONAL EDUCATION, TOHOKU UNIVERSITY, JAPAN. *E-mail address:* frank.hansen@m.tohoku.ac.jp

Date: Received: September 30, 2013; Accepted: November 2, 2013. *Corresponding author.

²⁰¹⁰ Mathematics Subject Classification. Primary 47A56; Secondary 26B25. Key words and phrases. Perspective, non-commutative, convexity.