On operator monotone and operator convex functions

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Abstract

© 2016, Allerton Press, Inc.We establish monotonicity and convexity criteria for a continuous function f: R+ → R with respect to any C*-algebra. We obtain an estimate for the measure of noncompactness of the difference of products of the elements of a W*-algebra. We also give a commutativity criterion for a positive τ-measurable operator and a positive operator from a von Neumann algebra.

Keywords