

MORE REFINEMENTS OF THE OPERATOR REVERSE AM–GM INEQUALITY FOR POSITIVE LINEAR MAPS

ILYAS ALI, ABDUL SHAKOOR AND ABDUR REHMAN

Abstract. This paper aims to present some operator inequalities for positive linear maps. These inequalities are refinements of the results presented by Xue in [J. Inequal. Appl. 2017:283, 2017].

Mathematics subject classification (2010): 47A30, 47A63.

Keywords and phrases: Operator inequalities, operator reverse AM–GM inequality, operator norm, positive linear maps.

REFERENCES

- [1] M. TOMINAGA, *Specht's ratio in the Young inequality*, Sci. Math. Japan. **55** (2002), 583–588.
- [2] M. LIN, *Squaring a reverse AM–GM inequality*, Stud. Math. **215** (2013), 187–194.
- [3] T. ANDO, *Concavity of certain maps on positive definite matrices and applications to Hadamard products*, Linear Algebra Appl. **26** (1979), 203–241.
- [4] X. HU, *Some inequalities for unitarily invariant norms*, J. Math. Inequal. **6** (2012), 615–623.
- [5] J. PEČARIĆ, T. FURUTA, J. MIČIĆ HOŠ, Y. SEO, *Mond–Pečarić method in operator inequalities*, Element, Zagreb, 2005.
- [6] J. XUE, *Some refinements of operator reverse AM–GM mean inequalities*, J. Inequal. Appl. 2017, 2017:283.
- [7] J. XUE, *Weighted arithmetic-geometric operator mean inequalities*, J. Inequal. Appl. 2018, 2018:154.
- [8] R. BHATIA, F. KITTANEH, *Notes on matrix arithmetic-geometric mean inequalities*, Linear Algebra Appl. **308** (2000), 203–211.
- [9] R. BHATIA, *Positive Definite Matrices*, Princeton University Press, 2007.