A NOTE ON CENTRAL MOMENTS IN C^*–ALGEBRAS

ZOLTÁN LÉKA

Abstract. We present sharp estimates of the kth central moments of normal elements in C^*-algebras. We shall obtain an upper bound for the weak moments of general elements as well.

REFERENCES

[1] K. M. R. AUDENAERT, *Variance bounds, with an application to norm bounds for commutators*, Linear Algebra Appl., **432** (2010), 1126–1143.
[2] B. AUPETIT, *A Primer on Spectral Theory*, Springer–Verlag, 1991.
[3] A. BARVINOK, *A Course in Convexity*, Amer. Math. Soc., 2002.
[4] R. BHATIA AND R. SHARMA, *Some inequalities for positive linear maps*, Linear Algebra Appl., **436** (2012), 1562–1571.
[5] T. BHATTACHARYYA AND P. GROVER, *Characterization of Birkhoff–James orthogonality*, J. Math. Anal. Appl., **407** (2013), 350–358.
[6] J. B. CONWAY, *A Course in Operator Theory*, Amer. Math. Soc, Providence, 2000.
[7] M. N. MURTHY AND V. K. SETHI, *Sankhya Ser B*, **27** (1965), 201–210.
[8] L. MOLNÁR, *Linear maps on observables in von Neumann algebras preserving the maximal deviation*, J. Lond. Math. Soc., **81** (2010), 161–174.
[9] G. K. PEDERSEN, *Analysis Now*, Springer–Verlag, 1989.
[10] M. A. RIEFFEL, *Standard deviation is a strongly Leibniz seminorm*, New York J. Math., **20** (2014), 35–56.

Journal of Mathematical Inequalities
www.ele-math.com
jmi@ele-math.com