MULTI–PARAMETER GENERALIZATION
OF RADO–POPOVICIU INEQUALITIES

Jing Zhang and Huan-Nan Shi

Abstract. By using methods on the theory of majorization, new generalizations of Rado's inequality and Popoviciu's inequality which involves multi-parameter are established.

REFERENCES

[1] D. S. Mitrinović, P. M. Vasić, *Analytic Inequalities*, Springer-Verlag, Berlin, Heidelberg, 1970, 74–94.

[2] D. S. Mitrinović, J. E. Pečarić, A. M. Fink, *Classical and New Inequalities in Analysis*, Kluwer Academic Publishers, Dordrecht, 1993, 21–56.

[3] Chung-Lie Wang, *Inequalities of the Rado-Popoviciu type for functions and their applications*, J. Math. Anal. Appl., **100** (2) (1984), 436–446.

[4] Huan-Nan Shi, *A new generalization of the Popoviciu's inequality*, J. Sichuan Norm. Univ. Nat. Sci. Ed., **25** (5) (2002), 510–511, (in Chinese).

[5] Vasile Miheşan, *Rado and Popoviciu type inequalities for pseudo arithmetic and geometric means*, Int. J. Pure Appl. Math., **23** (3) (2005), 293–297.

[6] M. Bencze, *A generalization of T. Popoviciu's inequality*, Gazeta Mat., **96** (1991), 159–161.

[7] H. Alzer, *Rado-type inequalities for geometric and harmonic means*, J. Pure Appl. Math. Sci., **24** (1989), 125–130.

[8] S. Wu, L. Debnath, *Weighted generalization of Rado's inequality and Popoviciu's inequality*, Appl. Math. Lett., **21** (2008), 313–319.

[9] A. W. Marshall, I. Olkin, and B. C. Arnold, *Inequalities: Theory of Majorization and Its Application* (Second Edition), Springer, New York, 2011.

[10] B. Y. Wang, *Foundations of Majorization Inequalities*, Beijing Normal University Press, Beijing, 1990, (in Chinese).

[11] H.-N. Shi, *Theory of Majorization and Analytic Inequalities*, Harbin Institute of Technology Press, Harbin, 2012, (in Chinese).

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