Successive Minima and Radii

Dedicated to Ted Bisztriczky, on his sixtieth birthday.

Martin Henk and María A. Hernández Cifre

Abstract. In this note we present inequalities relating the successive minima of an $o$-symmetric convex body and the successive inner and outer radii of the body. These inequalities join known inequalities involving only either the successive minima or the successive radii.

Institut für Algebra und Geometrie, Otto-von-Guericke Universität Magdeburg, Universitätsplatz 2, D-39106 Magdeburg, Germany
e-mail: henk@math.uni-magdeburg.de

Departamento de Matemáticas, Universidad de Murcia, Campus de Espinardo, 30100-Murcia, Spain
e-mail: mhcifre@um.es

Received by the editors December 3, 2007; revised March 28, 2008.

The second author is supported in part by Dirección General de Investigación (MEC) MTM2007-64504 and by Fundación Séneca (C.A.R.M.) 04540/GERM/06.
AMS subject classification: Primary 52A20; secondary: 52C07, 52A40, 52A39.
Keywords: successive minima, inner and outer radii.
© Canadian Mathematical Society 2009.