Journal de Théorie des Nombres
de Bordeaux **14** (2002), 683–700

An explicit formula for the Mahler measure of a family of 3-variable polynomials

par Chris J. SMYTH

To Michel Mendès France on the occasion of his 65th birthday

Résumé. On montre une formule explicite pour la mesure de Mahler du polynôme $a + bx^{-1} + cy + (a + bx + cy)z$ en termes de dilogarithmes et trilogarithmes.

Abstract. An explicit formula for the Mahler measure of the 3-variable Laurent polynomial $a + bx^{-1} + cy + (a + bx + cy)z$ is given, in terms of dilogarithms and trilogarithms.

Chris J. Smyth
School of Mathematics
University of Edinburgh, King's Buildings
Mayfield Road, Edinburgh EH9 3JZ
United Kingdom
E-mail : chris@maths.ed.ac.uk

Manuscrit reçu le 24 avril 2001.