1067-11-2080

Michael A. Bennett* (bennett@math.ubc.ca), 1984 Mathematics Road, Department of Mathematics, University of British Columbia, Vancouver, B.C. V6T 1Z2, Canada. *Effective solution of Norm-form equations*. Preliminary report.

Effective solution of norm-form equations has traditionally been based upon reduction to 3-term S-unit equations and subsequent application of lower bounds for linear forms in p-adic and complex logarithms. These reductions require the corresponding number fields to have quite special properties. We will consider an alternative approach, in itself rather specialized, that enables us in some circumstances to solve 3 or 4 variable S-unit equations where older methods fail. (Received September 22, 2010)