

Year: 2013

Vol.: 83

Fasc.: 1-2

Title: On an S -unit variant of Diophantine m -tuples

Author(s): László Szalay and Volker Ziegler

Let S be a fixed set of primes and let $a_1, \dots, a_m$ be positive distinct integers. We call the m -tuple $(a_1, \dots, a_m)$ S -Diophantine, if for all $i \neq j$ the integers $a_i a_j + 1 = s_{i,j}$ are S -integers. In this paper we show that if $|S| = 2$, then under some technical restrictions no S -Diophantine quadruple exists.

Address:

László Szalay
Institute of Mathematics
University of West Hungary
Ady E. utca 5.
H-9400 Sopron
Hungary

Address:

Volker Ziegler
Johann Radon Institute for Computational
and Applied Mathematics (RICAM)
Austrian Academy of Sciences
Altenbergerstraße 69
A-4040 Linz
Austria