Year: 2021 Vol.: 98 Fasc.: 1-2

Title: On sums of Fibonacci numbers with few binary digits

Author(s): Ingrid Vukusic and Volker Ziegler

In this paper, we completely solve the Diophantine equation $F_n + F_m = 2^{a_1} + 2^{a_2} + 2^{a_3} + 2^{a_4} + 2^{a_5}$, where F_k denotes the k-th Fibonacci number. In addition to complex linear forms in logarithms and the Baker–Davenport reduction method, we use p-adic versions of both tools.

Address:

Ingrid Vukusic Department of Mathematics University of Salzburg Hellbrunnerstrasse 34/I A-5020 Salzburg Austria

Address:

Volker Ziegler Department of Mathematics University of Salzburg Hellbrunnerstrasse 34/I A-5020 Salzburg Austria