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