

Year: 2015

Vol.: 86

Fasc.: 3-4

Title: Diophantine quadruples in the sequence of shifted Tribonacci numbers

Author(s): Carlos Alexis Gómez Ruiz and Florian Luca

The Tribonacci sequence $\{T_n\}_{n \geq 0}$ has initial values $T_0 = 0$, $T_1 = T_2 = 1$ and each term afterwards is the sum of the preceding three terms. In this paper, we study sequences $a_1, \dots, a_m$ of positive integers such that the product of any two different terms is a Tribonacci number. We prove that there is no such example with $m = 4$, give an example with $m = 3$, and leave as an open problem to find all examples for $m = 3$.

Address:

Carlos Alexis Gómez Ruiz
Departamento de Matemáticas
Universidad del Valle
Ap. Postal 25360 Cali
Calle 13 # 100-00
Colombia

Address:

Florian Luca
School of Mathematics
University of the Witwatersrand
P.O. Box Wits 2050
South Africa
and
Mathematical Institute
UNAM Juriquilla
Ap. Postal 76230 Santiago de Querétaro
México