K. Liptai, G. K. Panda, and L. Szalay

Abstract

A balancing problem associated with two integer sequences is introduced. The problem is studied using the sequences obtained from a binary recurrence and its associate sequence. We provide an algorithm to solve, under some circumstances, the Diophantine equation $G_0 + G_1 + \cdots + G_x = H_0 + H_1 + \cdots + H_y$ in the non-negative integer unknowns $x$ and $y$, where the sequence $\{H_n\}_{n=0}^{\infty}$ is the associate of $\{G_n\}_{n=0}^{\infty}$. 