

S.D. Dafnis, A.N. Philippou and I.E. Livieris. [An alternating sum of Fibonacci and Lucas numbers of order k](#) . *Mathematics*, 2020



**Abstract** -During the last decade, many researchers have focused on proving identities that reveal the relation between Fibonacci and Lucas numbers. Very recently, one of these identities has been generalized to the case of Fibonacci and Lucas numbers of order k. In the present work, we state and prove a new identity regarding an alternating sum of Fibonacci and Lucas numbers of order k. Our~result generalizes recent works in this direction.