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**Title:** On the weighted sum of consecutive values of an additive representation function

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Let  $\mathbb{N}$  be the set of nonnegative integers. For any set  $A \subset \mathbb{N}$ , let  $R_A(n)$  denote the number of solutions of the equation  $n = a + b$  with  $a, b \in A$ . Recently, Kiss and Sándor established some relations between  $|\lambda_0 R_A(n) + \lambda_1 R_A(n-1) + \cdots + \lambda_d R_A(n-d)|$  and  $|\{m : m \leq n, \lambda_0 \chi_A(m) + \lambda_1 \chi_A(m-1) + \cdots + \lambda_d \chi_A(m-d) \neq 0\}|$ , where  $\chi_A(k) = 1$  if  $k \in A$ , otherwise  $\chi_A(k) = 0$ . In this paper, we improve one of the results of Kiss and Sándor to the best possible up to a constant factor.

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