

**AN INEQUALITY FOR A LINEAR DISCRETE OPERATOR  
INVOLVING CONVEX FUNCTIONS**

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ABSTRACT. For the functional  $A[f] = \sum_{k=1}^m a_k f(z_k)$ , we give necessary and sufficient conditions over the real numbers  $z_k$ , such that the inequality  $A[f] \geq 0$  holds for some classes of convex functions. Then, we deduce some applications.