Deficiency numbers of symmetric operators generated by block Jacobi matrices

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ABSTRACT
Symmetric block Jacobi matrices J and the corresponding symmetric operators L are studied. Let $m$ be the size of the blocks in the matrix J. As is known, the deficiency numbers $m^+$ and $m^-$ of the operator L satisfy the inequalities $0 \leq m^+, m^- \leq m$ and achieve their maximum value $m$ simultaneously.

Let $m^+$ and $m^-$ be arbitrary integers such that $0 \leq m^+, m^- \leq m - 1$. It is shown that there exists a symmetric Jacobi matrix J such that $m^+$ and $m^-$ are the deficiency numbers of the corresponding symmetric operator L.