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SPLITTING OF OPERATORS FOR FRAME INEQUALITIES

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Abstract. In this paper, we obtain some new inequalities for frames, which are parametrized by a parameter $\lambda \in \mathscr{R}$. By suitable choices of λ, one obtains the known results as special cases. Our new results also make the underlying mathematical structure that gives rise to these inequalities more transparent than previous approaches: our results show that the main point is the splitting $S = S_1 + S_2$ of a positive definite frame operator S into the two positive semidefinite operators S_1 and S_2.

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