
SPECTRAL INEQUALITIES FOR JACOBI MATRICES FOLLOWING HUNDERTMARK AND SIMON

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We shall proof of a Lieb-Thirring type inequality for Jacobi matrices originally conjectured by Hundertmark and Simon. In particular, we show that the estimate on the sum of eigenvalues does not depend on the off-diagonal terms as long as they are smaller than their asymptotic value. An interesting feature of the proof is that it employs a technique originally used by Hundertmark-Laptev-Weidl concerning sums of singular values for compact operators.

This is a joint work with M.Loss and L.Schimmer.