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ESTIMATING MATCHING DISTANCE BETWEEN SPECTRA

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Abstract. We show that if a, b are elements of an unital Banach algebra such that almost all convex combinations of a and b have a finite spectrum of cardinality n, then the optimal matching distance between their spectra satisfies

$$D(\sigma(a),\sigma(b)) \leqslant c_n \left(\|a\|+\|b\|\right)^{1-1/n} \|a-b\|^{1/n},$$

where $c_n \leqslant 8(1+1/n)(n/2)^{1/n}$.

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