

## 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

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

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

*Mathematics subject classification (2000):* 15A42, 47A10.

*Keywords and phrases:* spectrum, algebroid multifunction, matching distance.

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