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APPROXIMATE DOUBLE COMMUTANTS IN VON NEUMANN ALGEBRAS AND C*–ALGEBRAS

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Abstract. Richard Kadison showed that not every commutative von Neumann subalgebra of a factor von Neumann algebra is equal to its relative double commutant. We prove that every commutative C*-subalgebra of a centrally prime C*-algebra $\mathscr{B}$ equals its relative approximate double commutant. If $\mathscr{B}$ is a von Neumann algebra, there is a related distance formula.

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