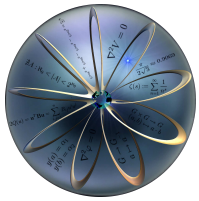

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Gelfand-Naimark representation theorem

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The Gelfand-Naimark representation theorem is as follows:
Theorem 1.1

*Every C^*-algebra is isometrically isomorphic to a norm closed *-subalgebra $\mathbb{B}_{nc}(\mathcal{H})$ of an algebra $\mathbb{B}(\mathcal{H})$ of bounded operators on some Hilbert space $\mathcal{H}$. In particular, every finite dimensional C^*-algebra is isomorphic to a direct sum of matrix algebras.*