

Topics in linear isometries of function algebras

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Abstract

I. Banach-Stone type theorems for uniform algebras

- Uniform algebras on a compact Hausdorff space M and unital, commutative Banach algebras.
- Uniform algebras and Bernard's theorem.
- Examples:
 - 1.- $C(M)$ and a theorem of Phelps.
 - 2.- The disc algebra and inner functions in \mathcal{A}^0 .
 - 3.- The Hardy space H^∞ and Marshall's theorem.
- Linear isometries of a class of function algebras.
- The Banach-Stone theorem and some of its generalizations.
- Linear isometries of \mathcal{A}^0 and their spectra.
- Iterates of linear isometries of \mathcal{A}^0 and H^∞
- Strongly continuous semigroups of H^∞ .

II. Operator-valued inner maps

- Subharmonicity of the spectral radius. A maximum theorem for the peripheral spectrum.
- Holomorphic families of linear contractions.