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The Fekete–Szegö problem for spirallike mappings and non-linear resolvents in Banach spaces

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Abstract

We study the Fekete–Szegö problem on the open unit ball of a complex Banach space. Namely, the Fekete–Szegö inequalities are proved for the class of spirallike mappings relative to an arbitrary strongly accretive operator, and some of its subclasses. Next, we consider families of non-linear resolvents for holomorphically accretive mappings vanishing at the origin. We solve the Fekete–Szegö problem over these families.

Based on the join work with Mark Elin.