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On the Generalized Fekete-Szegö Functional

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Abstract

The Fekete–Szegö functional plays an important role in the study of coefficient problems in geometric function theory. In this talk, we focus on a generalized version of this functional, given by

$$\left|a_3 - \lambda a_2^2\right| - \mu|a_2|,$$

where $\lambda \in \mathbb{C}$ and $\mu \geq 0$, and establish sharp upper and lower bounds for this functional on various subclasses of normalized univalent and locally biholomorphic mappings.