Śladkowska, Janina
Sur une famille de fonctions univalentes et bornées. (On a family of univalent and bounded functions). (French) Zbl 0712.30020

Let $S_1(a)$ denote the space of all functions $f$, holomorphic and univalent in the unit disk $U$, of the form

$$f(z) = b_1 z + b_2 z^2 + \ldots, \quad b_i \in \mathbb{C},$$

such that $a \not\in f(U)$, $|a| < 1$ fixed, and $f(U) \subset U$. Let $\psi(f)$ be a complex and continuous functional defined on $S_1(a)$. Using variational methods, the author investigates the functional $\text{Re} \, \psi(f)$ defined on $S_1(a)$ and proves some properties of extremal functions. An example is given.

Reviewer: O. Fekete

MSC:
30C70 Extremal problems for conformal and quasiconformal mappings, variational methods
30H05 Spaces of bounded analytic functions of one complex variable

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