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**On the Stability of Taylor Sections of a Function**  $\sum_{k=0}^{\infty} z^k/a^{k^2}$ ,  $a > 1$

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**Abstract.** We investigate the following problem: given a positive integer  $n$ , which are the smallest values of the constants  $s_n$ , such that the zeros of  $f_{a,n}(z) := \sum_{k=0}^n z^k/a^{k^2}$  are with negative real parts when  $a > s_n$ ?

**Keywords.** Hurwitz polynomial, stable polynomial, zeros of sections of entire functions.

**2000 MSC.** 30C15, 30D15, 26C10, 34D99.

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