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**Solutions of $f'' + A(z)f = 0$ in the Unit Disc
Having Blaschke Sequences as the Zeros**

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Abstract. We study the zero sequences of the non-trivial solutions of

$$(*) \quad f'' + A(z)f = 0,$$

where $A(z)$ is analytic in the unit disc. Namely, we consider the following two problems:

- (1) find a growth condition on $A(z)$ such that the zero sequence of any non-trivial solution of (*) is a Blaschke sequence;
- (2) for a given Blaschke sequence of distinct complex numbers, find a coefficient function $A(z)$ such that (*) possesses a solution having zeros precisely at the points of this prescribed sequence.

Related to Problem (2), we illustrate the growth of the resulting function $A(z)$, and show that there are uncountably many coefficient functions $A(z)$ with the desired property.

Keywords. Zeros of solutions, zero distribution, zero sequences, prescribed zeros, Blaschke sequences.

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