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**The Distribution of Zeros  
of Finite Order Bank-Laine Functions**

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**Abstract.** A Bank-Laine function is an entire function  $E$  such that  $E(z) = 0$  implies that  $E'(z) = \pm 1$ . Such functions arise as products of linearly independent solutions of certain ordinary differential equations. We investigate the extent to which the growth of  $E$  can be related with the exponent of convergence of its zeros. We show that if a sequence  $(z_n)$  is of finite order  $\lambda$ , where  $\lambda \neq (2l + 1)/2$ ,  $l \in \mathbb{N}$  and is regularly distributed on a single ray then there does not exist a Bank-Laine function of finite order having precisely the zero sequence  $(z_n)$ . This result supports a conjecture of D. Drasin and J. Langley.

**Keywords.** Bank-Laine functions, regularly distributed zeros, growth of entire functions.

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