Zheng, Xiumin; Chen, Zongxuan
On deficiencies of some difference polynomials. (Chinese. English summary)

Summary: R. G. Halburd and R. J. Korhonen [J. Math. Anal. Appl. 314, No. 2, 477–487 (2006; Zbl 1085.30026)] stated that the study of value distribution of complex differences will play an important role in the further study of complex differences and difference equations, which gained renewed interests recently. In this paper, we obtain some results on deficiencies of difference polynomials of meromorphic functions of finite order, some of which can be viewed as difference analogues of corresponding results of differential polynomials. Under some conditions, a difference analogue of the classical Valiron-Mohon’ko theorem is also given as an important tool in this paper.

MSC:

30D35 Value distribution of meromorphic functions of one complex variable, Nevanlinna theory
39A10 Additive difference equations

Keywords:
difference polynomial; meromorphic function; finite order; deficiency

Cited in 1 Review
Cited in 4 Documents