Lahiri, Indrajit

Weighted sharing of three values and uniqueness of meromorphic functions. (English)

Zbl 0996.30020

Kodai Math. J. 24, No. 3, 421-435 (2001).

Let f and g be distinct nonconstant meromorphic functions in the complex plane, k a nonnegative integer or infinity, and a a member of $\mathbb{C} \cup \{\infty\}$. Let $E_k(a; f)$ be the set of all a-points of f where an a-point of multiplicity m is counted m times if $m \leq k$ and $k+1$ times if $m > k$. If $E_k(a; f) = E_k(a; g)$, then f and g are said to share the value a with weight k. Using weighted sharing the author proves results on the uniqueness of meromorphic functions sharing three values in the complex plane which improve theorems of *H. Ueda* [Kodai Math. J. 3, 457-471 (1980; Zbl 0468.30023)], *H. X. Yi* [Chin. Ann. Math., Ser. A 9, 434-439 (1988; Zbl 0699.30024)], and *S. Z. Ye* [Kodai Math. J. 15, 236-243 (1992; Zbl 0767.30026)].

Reviewer: L.R.Sons (DeKalb)

MSC:

30D35 Value distribution of meromorphic functions of one complex variable, Nevanlinna theory

Cited in **1** Review
Cited in **24** Documents

Full Text: DOI