

Yi, H. X.; Yang, C. C.

A uniqueness theorem for meromorphic functions whose N -th derivatives share the same 1-points. (English) [Zbl 0799.30019](#)

J. Anal. Math. 62, 261-270 (1994).

The authors continue their work on uniqueness theorem arising from common point properties. Their main result here is the theorem: If f and g are two meromorphic functions with $\theta(\infty, f) = \theta(\infty, g) = 1$ and if $f^{(n)} = 1$ if and only if $g^{(n)} = 1$ and $\delta(0, f) + \delta(0, g) > 1$, then either $f \equiv g$ or $f^{(n)}g^{(n)} \equiv 1$.

Reviewer: [Fred Gross \(Washington\)](#)

MSC:

[30D30](#) Meromorphic functions of one complex variable, general theory

[30D35](#) Value distribution of meromorphic functions of one complex variable, Nevanlinna theory

Cited in **2** Reviews
Cited in **74** Documents

Keywords:

[value sharing](#); [uniqueness Theorem](#)

Full Text: [DOI](#)

References:

- [1] H. S. Gopalakrishna and S. S. Bhoosnurmath, Exceptional values of a meromorphic function and its derivatives, *Annales Polonici Mathematici* 35 (1977), 99–105. · [Zbl 0371.30026](#)
- [2] F. Gross, Factorization of Meromorphic Functions, U. S. Govt. Printing Office Publications, Washington, D.C., 1972. · [Zbl 0266.30006](#)
- [3] W. K. Hayman, Meromorphic Functions, Oxford University Press, 1964.
- [4] M. Ozawa, Unicity theorems for entire functions, *J. Analyse Math.* 30 (1976), 411–420. · [Zbl 0337.30020](#) · [doi:10.1007/BF02786728](#)
- [5] K. Shibazaki, Unicity theorems for entire functions of finite order. *Memoirs of the National Defense Academy, Japan* 21 (3) (1981), 67–71. · [Zbl 0507.30022](#)
- [6] C. C. Yang, On two entire functions which together with their first derivatives have the same zeros, *J. Math. Anal. Appl.* 56 (1976), 1–6. · [Zbl 0338.30018](#) · [doi:10.1016/0022-247X\(76\)90002-0](#)
- [7] H. X. Yi and C. C. Yang, Unicity theorems for two meromorphic functions with their first derivatives having the same 1 points, *Acta Math. Sinica* 34 (5) (1991), 675–680. · [Zbl 0736.30021](#)
- [8] Hong-Xun Yi, Meromorphic functions with two deficient values, *Acta Math. Sinica* 30 (5) (1987), 588–597. · [Zbl 0654.30023](#)

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