

Bhoosnurmah, Subhas S.; Dyavanal, Renukadevi S.

Uniqueness and value-sharing of meromorphic functions. (English) Zbl 1170.30011
Comput. Math. Appl. 53, No. 8, 1191-1205 (2007).

Using Nevanlinna theory, the authors improve some earlier results concerning value-sharing of meromorphic functions. The authors recall related theorems of Chume-Hayman and Zang-Hua. Hennekemeter, Chen, and Wang gave (independently) some extensions of the above quoted theorems. Fang further extended these theorems, where uniqueness statements are in the center of discussion. Here the authors give further natural generalizations and similar theorems. We mention their theorem 4: Let $f(z)$ and $g(z)$ be two non-constant meromorphic functions satisfying a certain condition which we don't quote. Then if $[f^n(f-1)]^{(k)}$ and $[g^n(g-1)]^{(k)}$ share 1 CM, it follows that $f \equiv g$.

Reviewer: [Dov Aharonov \(Haifa\)](#)

MSC:

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

Cited in **5** Reviews
Cited in **19** Documents

Keywords:

meromorphic function; entire function; shared values; differential polynomial; uniqueness

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