

UNIQUENESS RESULTS FOR DIFFERENTIAL POLYNOMIALS WEIGHTED SHARING A VALUE OR A SET OF ROOTS OF UNITY

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Abstract. We study the uniqueness results of meromorphic functions f and g if differential polynomials of the type $(P(f)^n)^{(k)}$ and $(P(g)^n)^{(k)}$ weighted share a set of roots of unity or a value, where P is a polynomial of one variable. The results of the paper generalize some earlier results due to Khoai and An [Advanced Studies Euro-Tbilisi Math. J., **15** (2022), 39–51] and Sahoo and Sultana [An. Stiint. Univ. Al. I. Cuza Iasi. Mat. (N.S.), Tomul LXX, 2024, f.1].
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