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Normal Families and Shared Values of Meromorphic Functions III

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Abstract. This paper continues our investigation of conditions involving values shared by a function and its derivatives which imply the normality of families of meromorphic functions. In particular, we prove that if \mathcal{F} is a family of meromorphic functions on the plane domain D , all of whose zeros have multiplicity at least $k + 1$, and if $f(z) = a \iff f^{(k)}(z) = b$ for all $f \in \mathcal{F}$ and $z \in D$ (where a and b are nonzero complex numbers), then \mathcal{F} is normal on D .

Keywords. Normal families, meromorphic functions, shared values.

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