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Normal Families of Meromorphic Functions whose Derivatives Omit a Function

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Abstract. Let \mathcal{F} be a family of functions meromorphic on the plane domain D , and let h be a holomorphic function on D , $h \not\equiv 0$. Suppose that, for each $f \in \mathcal{F}$, $f^{(m)}(z) \neq h(z)$ for $z \in D$. Then \mathcal{F} is normal on D (i) if all zeros of functions in \mathcal{F} have multiplicity at least $m + 3$, or (ii) if all zeros of functions in \mathcal{F} have multiplicity at least $m + 2$ and h has only multiple zeros on D , or (iii) if all poles of functions in \mathcal{F} are multiple and all zeros have multiplicity at least $m + 2$.

Keywords. Normal families, omitted functions.

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