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Abstracts of Short Communications and Posters

Section:

9. Ordinary Differential Equations and Dynamical Systems

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On the Connnected Components of Julia Sets of Transcendental Entire Functions

Let $f : C \to C$ be an transcendental entire function and $J(f) \subset C$ its Julia set. We shall show that all the connected components of $J(f)$ are unbounded if and only if f has no multiply-connected wandering domains, and all the connected components of $J(f)$ are bounded if and only if f has a multiply-connected wandering domains. Consequently there is no possibility of coexistence of bounded components and unbounded components. We shall also refer to some properties of buried components.