

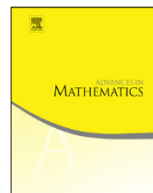


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# A bound on the number of rationally invisible repelling orbits



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## ABSTRACT

We consider entire transcendental maps with bounded set of singular values such that periodic rays exist and land. For such maps, we prove a refined version of the Fatou-Shishikura inequality which takes into account rationally invisible periodic orbits, that is, repelling cycles which are not landing points of any periodic ray. More precisely, if there are  $q < \infty$  singular orbits, then the sum of the number of attracting, parabolic, Siegel, Cremer or rationally invisible orbits is bounded above by  $q$ . In particular, there are at most  $q$  rationally invisible repelling periodic orbits. The techniques presented here also apply to the more general setting in which the function is allowed to have infinitely many singular values.

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