

Andrew Brown

University of Liverpool

Growth and topology of counterexamples to the Strong Eremenko Conjecture

For a transcendental entire function, f , the escaping set $I(f)$ is of great interest. In the 80s, the strong form of Eremenko's conjecture asked for an arbitrary transcendental entire function f if every point $z \in I(f)$ could be joined with infinity by a curve in $I(f)$. This was shown to not hold in general and that counterexamples to this conjecture whose set of singular values is bounded must be of infinite order. For such counterexamples, what can be said about their growth and the topology of the escaping set? First answers to these questions and the work currently being done will be discussed.