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Will Hoffer* (whoff003@ucr.edu). *On Resurgent Analysis of Explicit Formulae in Fractal Geometry.*

This work concerns the intermixing of fractal geometry and resurgent asymptotics. We focus on explicit formulae in fractal geometry that describe geometric or spectral quantities through singularities of an associated fractal zeta function. These formulae are known to contain information about the asymptotics and oscillations of the fractal's geometry, but may not be complete descriptions for certain fractals or generalized fractal strings having singular behavior. Namely, it is expected that some of these expansions will contain exponentially small or non-perturbative effects. We discuss the use of Borel-Écalle resummation and transseries to recover such information in this context. (Received March 04, 2021)