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Will Hoffer* (math@willhoffer.com). *On Stokes Phenomena and Geometric Zeta Functions.*

The Stokes phenomenon occurs when a function's asymptotic expansion changes fundamentally, dependent on the phase of the parameter which becomes large. In particular, we focus on cases where the asymptotic expansion is different between the positive and negative real line. The process of Borel resummation recovers asymptotic information from an expansion in one region of the complex plane for other regions, and this process involves directional Laplace transforms along these directions. Under suitable conditions, one can reinterpret the difference of these integral transforms as a geometric zeta function by relating bilateral Laplace and Mellin transforms. (Received August 28, 2021)