

**RIEMANN LOCALIZATION OF FOURIER SERIES BEYOND L^1 -
A DISTRIBUTIONAL APPROACH.**

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We discuss a Riemann localization result for a class of distributions larger than $L^1(T^1)$, which we denote $V(T^1)$, and compare it with a localization result going back to Riemann, whose classical presentation was somewhat indirect. We explore related results in analysis on $V(T^1)$, taking advantage of distribution theory to simplify and extend classical results. Our interest arises from the desire to understand the Schwartz kernels and mapping properties of such operators as parametrices for the resolvent of the logarithm of the Laplace operator on a compact Riemannian manifold. Such parametrices are interesting examples of non-classical conormal distributions.