Spectral properties

of

symmetrized AMV Laplacians

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The symmetrized Asymptotic Mean Value (AMV) Laplacians extend the Laplace operator from R^n to metric measure spaces through appropriate averaging integrals. On complete Riemannian manifolds, they provide an alternative approximation of the Laplace-Beltrami operator.

In this talk, I will present recent results obtained with my PhD student Manuel Dias (VUB) about the spectral properties of these operators on compact doubling metric measure spaces. Our results notably apply to spaces made of two Riemannian manifolds intersecting along a hypersurface.