

The Brownian traveller on manifolds

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One of the most influential works of Petr Šeba's is about geometrically induced bound states in quantum waveguides. Mathematically, and more generally, the problem is concerned with the spectral analysis of the Laplacian in tubular neighbourhoods of submanifolds of Riemannian manifolds. Using a stochastic motivation, we make an overview of our contribution on variants of such problems related to the Petr's pioneering work.