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Transplantation: Some easy applications

Abstract:

The notion of "ransplantation", introduced independently by P. Bérard, P. Buser, and S. Zelditch and developed and generalized by many others, has been a useful tool in generating many interesting examples of Riemannian manifolds, quantum graphs, and other geometric objects that are in some sense isospectral. We will review the algebraic background of transplantation, which is surprisingly simple, and we will illustrate the technique by means of a few examples. These will include a retrospective understanding of some older results, as well as some more recent work of Peter Herbrich and others.