Some stability results in the inverse Steklov problem on warped-product manifolds

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The Steklov spectrum is defined as the set of eigenvalues of the Dirichlet-to-Neumann operator on a compact Riemannian manifold with boundary (M,g). A natural question - called the Steklov inverse problem - is to understand the amount of information on (M,g) contained in its Steklov spectrum. In this talk, we show that the Steklov spectrum corresponding to a warped product riemannian manifold is enough to determine in a stable way the warping function of the manifold. This is a joint work with Niky Kamran and François Nicoleau.