



Embedding Riemannian Manifolds by the Heat Kernel of the Connection Laplacian

Hau-tieng Wu

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Given a class of closed Riemannian manifolds with prescribed geometric conditions, we introduce an embedding of the manifolds into ℓ^2 based on the heat kernel of the Connection Laplacian associated with the Levi-Civita connection on the tangent bundle. As a result, we can construct a distance in this class which leads to a pre-compactness theorem on the class under consideration.

Subjects: **Differential Geometry (math.DG)**; Spectral Theory (math.SP);
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