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Strichartz estimates on manifolds with boundary. Preliminary report.

We consider local Strichartz estimates for the wave equation on a Riemannian manifold with boundary. These are a family of space-time integrability estimates that rely on the dispersive effect of the solution map. Such inequalities have applications in the study of nonlinear equations.

When the boundary of the manifold is empty, such estimates are well-established. Otherwise, when boundary conditions are present, much less is known in the general case. We discuss new results in the area, widening the range of Lebesgue exponents for which the estimates hold. (Received August 14, 2007)