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**Sebastian Herr** (herr@math.uni-bonn.de) and **Jeremy L Marzuola\***  
(jm3058@columbia.edu). *Strichartz estimates for Schroedinger equations on polygonal domains*. Preliminary report.

The authors prove Strichartz estimates with a loss of derivatives for the Schrödinger equation with either Dirichlet or Neumann homogeneous boundary conditions on compact, polygonal domains in  $\mathbb{R}^2$ . The method of proof relies on the established Strichartz estimates for Schrödinger equations on smooth, compact domains without boundary in the works of Burq-Gerard-Tzvetkov and on Euclidean cones as proved by the second author. Then, we use Littlewood-Paley Theory as described in the work of the first author to construct estimates for the relevant domains using the local geometric behavior and in particular that a polygonal domain can be viewed as an Euclidean surface with conical singularities. (Received February 13, 2010)