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**Thomas Beck\*** (tdbeck@mit.edu). *Level sets of ground state eigenfunctions.*

We will consider the ground state eigenfunction for a class of Schrödinger operators on a convex two dimensional domain. The assumptions on the potential will ensure that the level sets of the eigenfunctions are convex. By constructing length scales and an orientation of the domain, depending on the eigenvalues of associated ordinary differential operators, we can determine the shape of the intermediate level sets. We will also discuss questions concerning the infinitesimal shape of the level sets near to the maximum of the eigenfunction. (Received September 20, 2016)