1042-41-113 **Kevin Romeo***, Department of Mathematics, 196 Auditorium Road, U3009, Storrs, CT 06269. *Approximation of the spectrum of the Laplacian operator on some Laakso spaces.* Preliminary report.

We present some approximations of some eigenvalues and eigenfunctions of a Laplacian operator on particular Laakso spaces. We demonstrate methods of constructing these spaces in terms of quantum graphs, and create matrix representations of the Laplacian. We discuss the distribution and multiplicity of the eigenvalues of the Laplacian and present a few examples of eigenfunctions on some of these spaces. (Received August 14, 2008)