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Robert Kesler and **Benjamin Steinhurst*** (steinhurst@math.cornell.edu), Department of Mathematics, Cornell University, Ithaca, NY 14853. *Casimir effect on higher dimensional Laakso spaces*. Preliminary report.

We define three dimensional Laakso spaces as the uncountably many unit cubes that have been identified so as to be able to cross from one cube to another, from one ‘universe’ to another. On these spaces we construct a Laplacian and derive a spectral zeta function from which can be calculated the strength of a Casimir effect. (Received September 21, 2011)