1056-35-283   **Jesse Ratzkin*** (`j.ratzkin@ucc.ie`), School of Mathematical Sciences, University College Cork, Western Gateway Building, Cork, Cork 00000. *Eigenvalues and Isoperimetric Inequalities.*

I will discuss some bounds for the first eigenvalue of the Laplacian with Dirichlet boundary conditions, particularly for domains in a cone. These bounds arise from weighted isoperimetic inequalities, which are interesting themselves. Time allowing, I will also discuss some applications. (Received September 14, 2009)