Zhiren Jin* (obonly@gmail.com), Department of Mathematics and Statistics, Wichita State University, 1845 N. Fairmount, Wichita, KS 67219. A Lower Bound for Principal Eigenvalues in Parabola-Shaped Regions.

When a domain is inside a parabola-shaped region, we show that the principal eigenvalues for Dirichlet problems of a linear second order elliptic operator in non-divergent form are bounded from below by a positive constant that is independent of the domain. (Received September 11, 2008)