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Dong Ye* (dong.ye@mtsu.edu), Department of Mathematical Sciences, Middle Tennessee State University, Murfreesboro, TN 37132. *Bounding Median Eigenvalues of Graphs.*

Let G be a graph with n vertices. Its eigenvalues of G can be ordered as $\lambda_1 \geq \lambda_2 \geq \cdots \geq \lambda_n$. The median eigenvalues of G is λ_H and λ_L , where $H = \lfloor (n+1)/2 \rfloor$ and $L = \lceil (n+1)/2 \rceil$. Median eigenvalues has physical meanings in Quantum Chemistry. In this talk, we present recent developments in bounding median eigenvalues of graphs by using graph inverses and squared graphs. This talk is based on joint work with D. Klein and Y. Yang. (Received August 24, 2015)