1027-60-85   **Sourav Chatterjee*** (`sourav@stat.berkeley.edu`), 367 Evans Hall #3860, Department of Statistics, Berkeley, CA 94720-3860. *CLTs for linear statistics of eigenvalues: A unified approach.*

We present an abstract central limit theorem with total variation error bounds for linear statistics of eigenvalues of random matrices. We show that this unified result works for Wigner, Wishart, and double Wishart matrices under certain smoothness assumptions on the distributions of the matrix elements. Till now the results for Wigner and Wishart matrices could only be proved by highly difficult ad hoc methods with no accompanying error bounds, and the double Wishart case was open. (Received February 16, 2007)