1046-15-1455   **Olga Pryporova*** (`olgav@iastate.edu`), Iowa State University, Ames, IA. *Diagonal and D convergence of matrices.*

A complex matrix A is D_R (respectively, D_C)-convergent if the spectral radius $\rho(DA) < 1$ for all real (respectively, complex) matrices D with $|D| \leq I$. A complex matrix A is diagonally convergent if there exists a positive diagonal matrix P such that $P - A^*PA$ is positive definite. I will discuss the relationships between D_R, D_C and diagonal convergence of matrices. (Received September 15, 2008)