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Feixue Gong* (feixue.gong@williams.edu), 2203 Paresky Center, Williamstown, MA 01267, and **Olivia Meyerson, Abigail Ward, Jeremy Meza** and **Mihai Stoiciu**. *Explicit Bounds for the Pseudospectra of Matrices and Operators*. Preliminary report.

We give several equivalent definitions for the ϵ -pseudospectrum of square matrices and investigate the behavior of the pseudospectra for non-normal matrices. We give a complete characterization of the pseudospectrum of 2×2 matrices and describe the asymptotic behavior of the pseudospectrum of a square matrix of arbitrary size, as epsilon approaches 0. We also give explicit upper and lower bounds for the ϵ -pseudospectra of bidiagonal matrices, as well as for finite rank operators. (Received September 15, 2014)