

8.6

$$A = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}, \|B\|_{\infty} = \left| \frac{a_{12}}{a_{21}} \right|, {}^2\|B\|_{\infty} = \left| \frac{a_{21} a_{12}}{a_{11} a_{22}} \right|$$

$$\sum_{j=1, j \neq i}^2 |a_{ij}| = |a_{12}| + |a_{21}| < a_{11}$$

$$\left. \begin{array}{l} |a_{21}| < |a_{11}|, \\ |a_{12}| < |a_{22}| \end{array} \right\} \begin{array}{l} |a_{21}| |a_{12}| < |a_{11}| |a_{22}| \\ \left| \frac{a_{21} a_{12}}{a_{11} a_{22}} \right| < 1 \end{array}$$

$${}^2\|B\|_{\infty} < 1$$

... ONE OF TWO POSSIBLE
MAX ROW SUMS IS
< 1