Gaußscher Algorithmus

$$A = \left(\begin{array}{ccc|c} a_{11} & \cdots & \star & \\ \vdots & \ddots & \vdots & \star \\ 0 & \cdots & a_{kk} & \\ \hline & 0 & & B \end{array}\right)$$

$$A' = \left(\begin{array}{ccc|c} a_{11} & \cdots & \star & \\ \vdots & \ddots & \vdots & \star \\ 0 & \cdots & a_{kk} & \\ \hline & & & a'_{k+1,k+1} \\ & 0 & & \vdots \quad\quad B' \\ & & & a'_{m,k+1} \end{array}\right) \quad \text{mit } a'_{k+1,k+1} \neq 0$$

$$A'' = \left(\begin{array}{ccc|cc} a_{11} & \cdots & \star & & \\ \vdots & \ddots & \vdots & \star & \\ 0 & \cdots & a_{kk} & & \\ \hline & & & a'_{k+1,k+1} & \star \\ & 0 & & \vdots & \\ & & & 0 & B'' \end{array}\right)$$