

$$\begin{pmatrix} a_{1,1} & a_{1,2} & \cdots & a_{1,p} \\ & & \vdots & \\ a_{i,1} & a_{i,2} & a_{i,2} & a_{i,p} \\ & & \vdots & \\ a_{m,1} & a_{m,2} & \cdots & a_{m,p} \end{pmatrix} \begin{pmatrix} b_{1,1} & b_{1,2} & \cdots & b_{1,j} & \cdots & b_{1,p} \\ b_{2,1} & b_{2,2} & \cdots & b_{2,j} & \cdots & b_{2,p} \\ & & \vdots & \\ b_{m,1} & b_{m,2} & \cdots & b_{m,j} & \cdots & b_{m,p} \end{pmatrix} = \begin{pmatrix} c_{1,1} & c_{1,2} & \cdots & c_{1,j} & \cdots & c_{1,p} \\ & & \vdots & \\ c_{i,1} & c_{i,2} & \cdots & c_{i,j} & \cdots & c_{i,p} \\ & & \vdots & \\ c_{m,1} & c_{m,2} & \cdots & c_{m,j} & \cdots & c_{m,p} \end{pmatrix}$$