$$n \leqslant n \text{◺} \mathbb{K} = \begin{cases} \text{l} \in \mathbb{K}^{n \times n} \\ i > j \Rightarrow {}_i\text{l}^j = 0 \end{cases} \quad \text{upper triangular matrix}$$

$$\text{l} * \text{ł} \in {}^{n \leqslant n \text{◺} \mathbb{K}} \xleftarrow[\text{bilin}]{*} {}^{n \leqslant n \text{◺} \mathbb{K}} \text{⧓}^{n \leqslant n \text{◺} \mathbb{K}} \ni \text{l} : \text{ł}$$

$$\underbrace{\text{l} * \text{ł}}_i{}^k = \sum_j^n {}_i\text{l}^j \; {}_j\text{ł}^k \quad \text{matrix product}$$

$$\begin{cases} j < i & \curvearrowright {}_i\text{l}^j = 0 \\ k < j & \curvearrowright {}_j\text{ł}^k = 0 \end{cases} \Rightarrow \underbrace{\text{l} * \text{ł}}_i{}^k = \sum_j^{i|k} {}_i\text{l}^j \; {}_j\text{ł}^k = \sum_j^n {}_i\text{l}^j \; {}_j\text{ł}^k$$

$$I = \begin{array}{c|c|c} 1 & \dots & 0 \\ \hline \vdots & \ddots & \vdots \\ \hline 0 & \dots & 1 \end{array} \quad {}_iI^j = \begin{cases} 1 & i = j \\ 0 & i \neq j \end{cases}$$