

Tikz Figures

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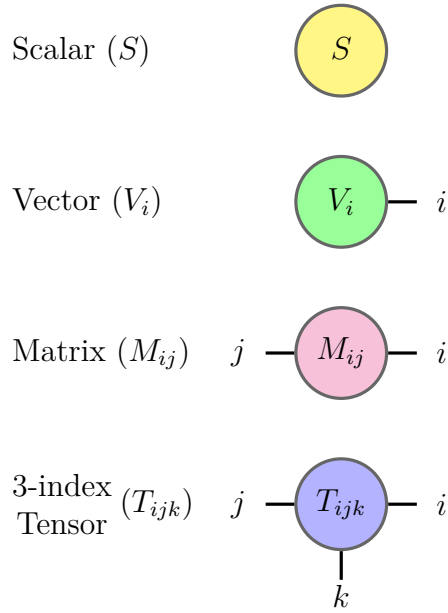


Figure 1: Tensor Diagrams

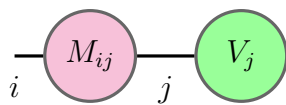
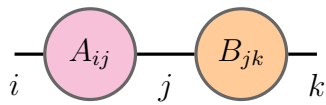
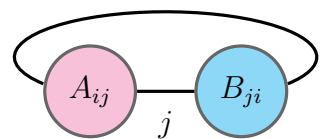
	=	$\sum_j M_{ij} V_j$
	=	$A_{ij} \underbrace{B_{jk}}_{\text{contracted}} = AB$
	=	$A_{ij} \underbrace{B_{ji}}_{\text{contracted}} = Tr[AB]$

Figure 2: Sample Contractions

$$\begin{array}{c} | \\ \textcircled{A} \\ \alpha_1 \end{array} \text{---} \begin{array}{c} | \\ \textcircled{B} \\ \alpha_2 \end{array} \text{---} \begin{array}{c} | \\ \textcircled{C} \\ \alpha_3 \end{array} \text{---} \begin{array}{c} | \\ \textcircled{D} \end{array} = \sum_{\alpha_1, \alpha_2, \alpha_3} A_{\alpha 1}^{s_1} B_{\alpha 1 \alpha 2}^{s_2} C_{\alpha 2 \alpha 3}^{s_3} D_{\alpha 3}^{s_4}$$

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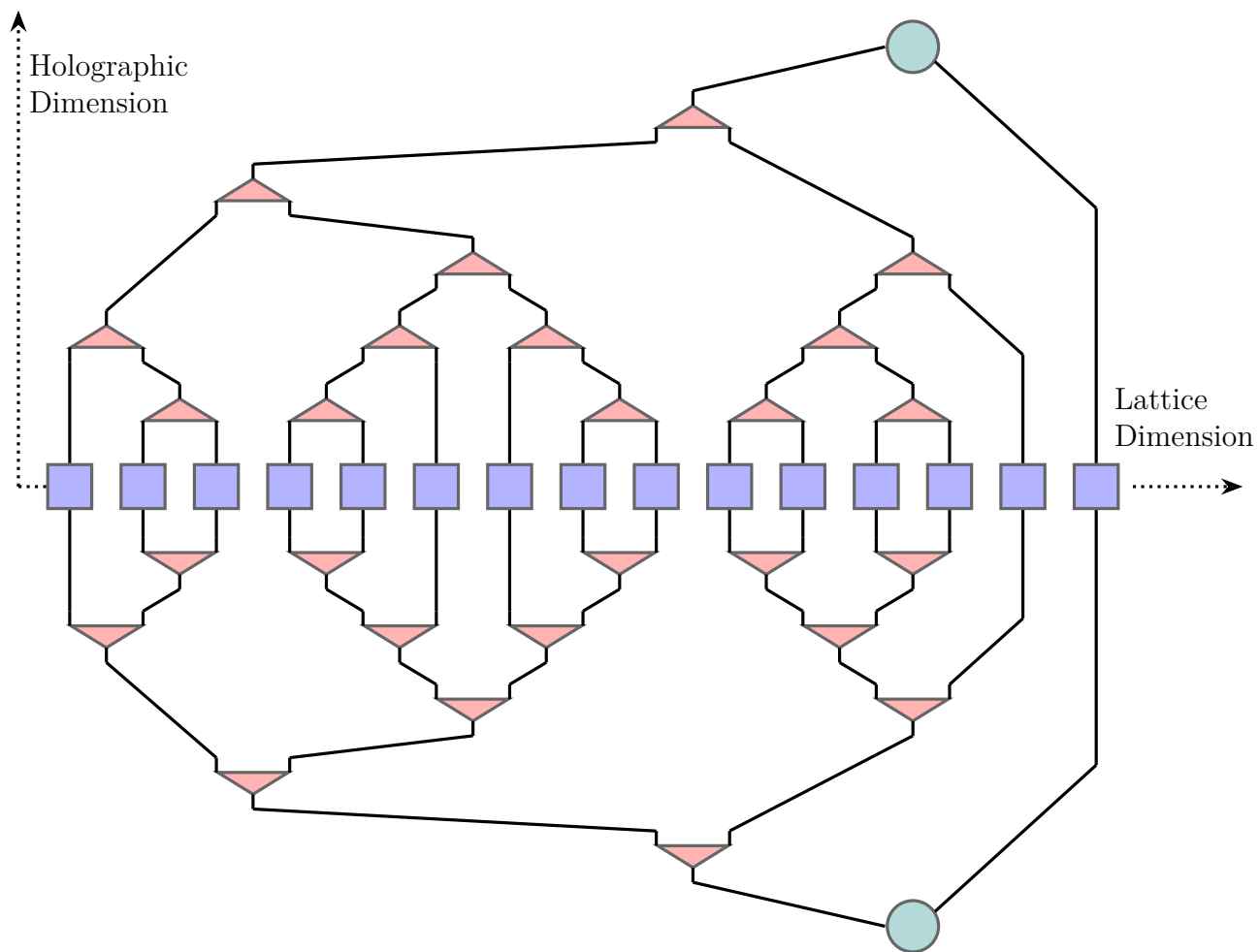


Figure 4: Tree Tensor Net