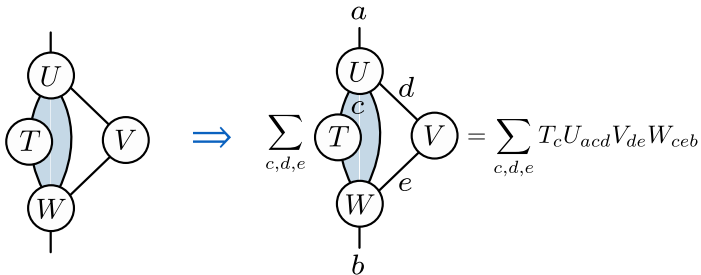# Shaded tensor networks

- Planar string diagram where some of the regions are shaded
- String diagram for a subcategory of the **2Hilb**, the 2-category of 2−Hilbert spaces



$$\implies \sum_{c,d,e} \quad = \sum_{c,d,e} T_c U_{acd} V_{de} W_{ceb}$$

**Shaded region** = index

**Closed shaded region** = implicit summation

D. J. Reutter and J. Vicary,  Higher Structures 3, 109 (2019)