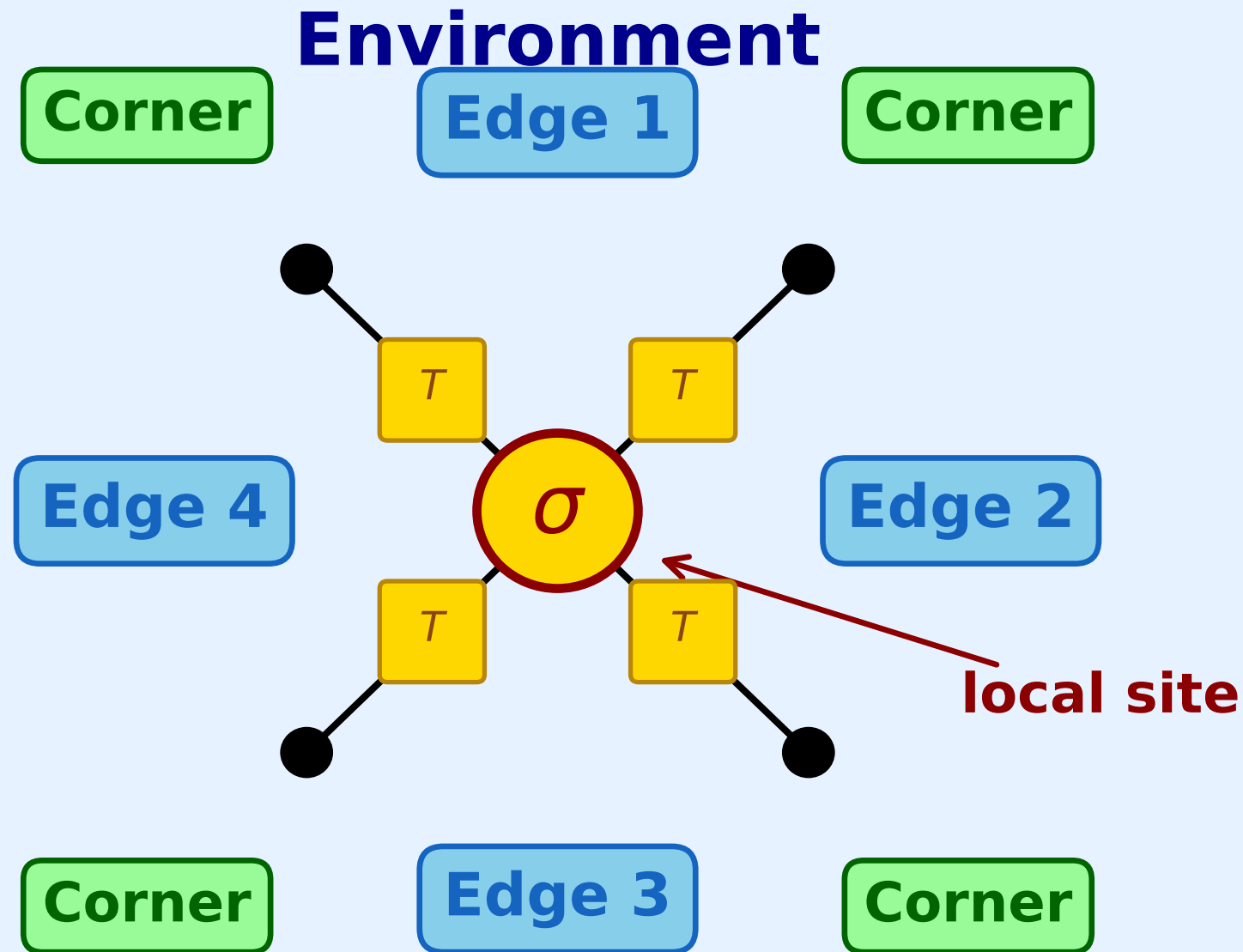


Only need local  $\langle \sigma \rangle$ ?  $\Rightarrow$  Compress the environment!



$$\langle \sigma \rangle = \frac{\text{Tr}(\text{Environment} \cdot \sigma)}{\text{Tr}(\text{Environment})}$$