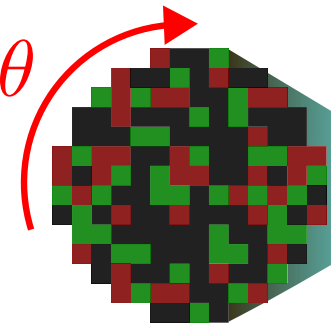
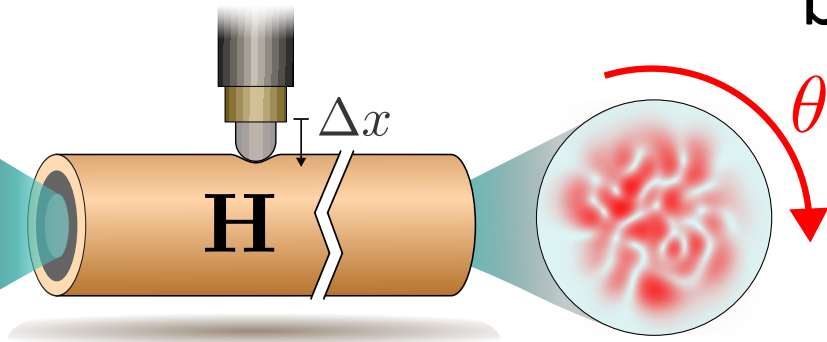


a.



$$|\phi_{in}\rangle \rightarrow \mathbf{R}(\theta) |\phi_{in}\rangle$$

b.



$$|\phi_{out}\rangle = \mathbf{T} |\phi_{in}\rangle$$

$$\rightarrow \mathbf{R}(\theta) |\phi_{out}\rangle$$

