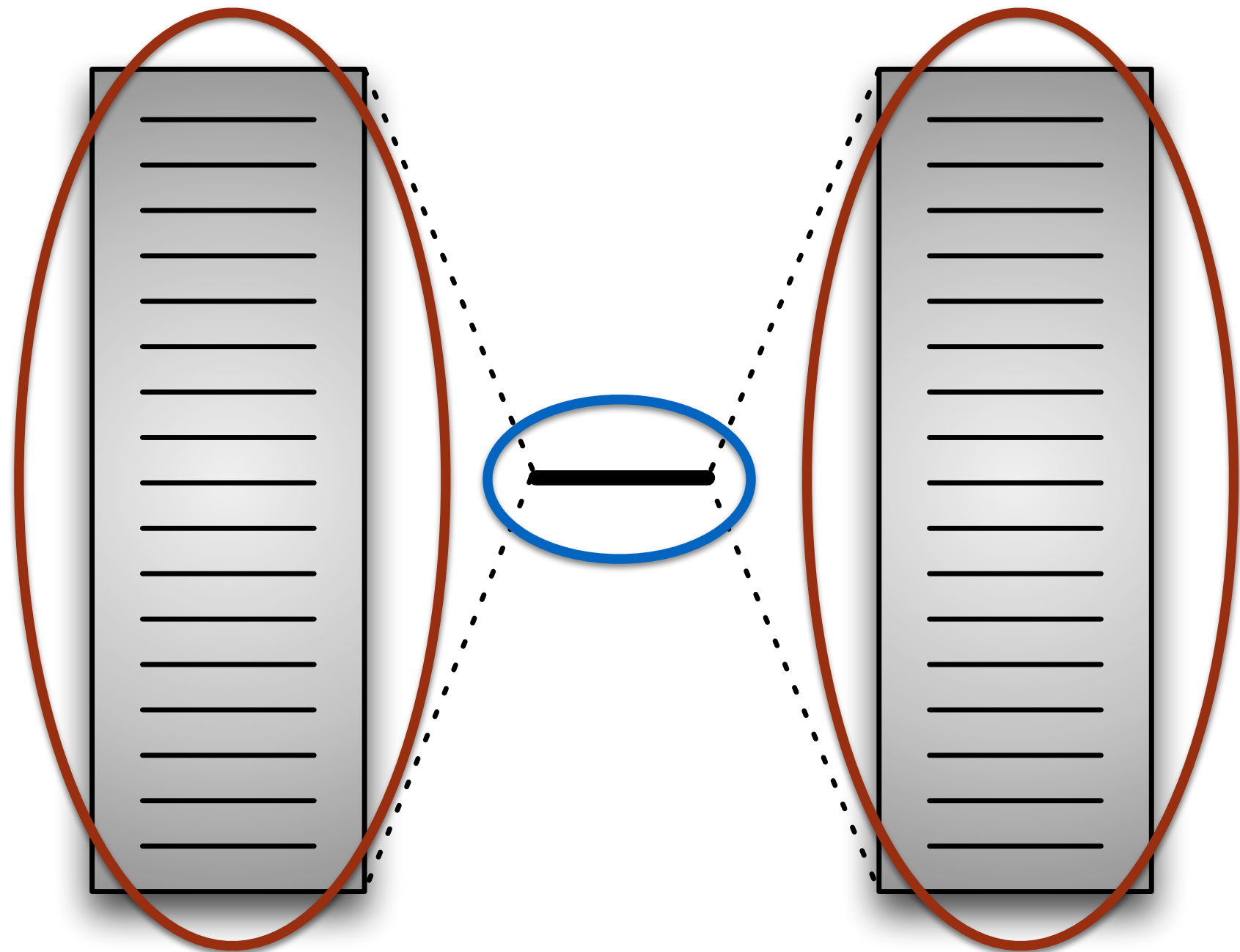


Landauer Model

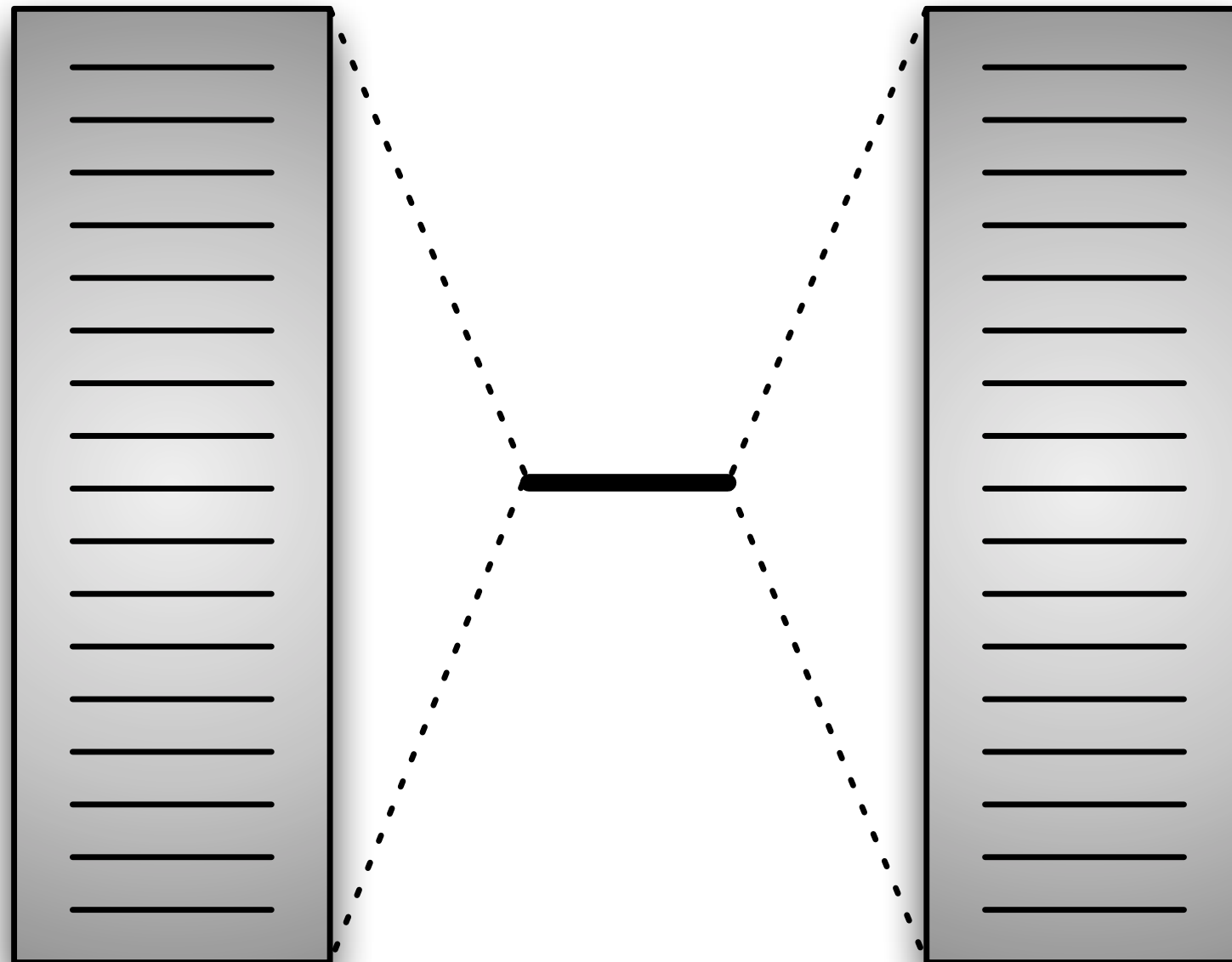


Left electrode

Right electrode

Quantum dot
("wire")

Landauer Model



$$\begin{aligned}
 & \sum_{k \in L} \epsilon_k \hat{a}_k^\dagger \hat{a}_k + \epsilon_o \hat{a}_0^\dagger \hat{a}_0 + \sum_{k \in R} \epsilon_k \hat{a}_k^\dagger \hat{a}_k \\
 & + \sum_{k \in L} t_k \left(\hat{a}_k^\dagger \hat{a}_0 + \hat{a}_0^\dagger \hat{a}_k \right) + \sum_{k \in R} t_k \left(\hat{a}_k^\dagger \hat{a}_0 + \hat{a}_0^\dagger \hat{a}_k \right)
 \end{aligned}$$