effective turbulent diffusivity
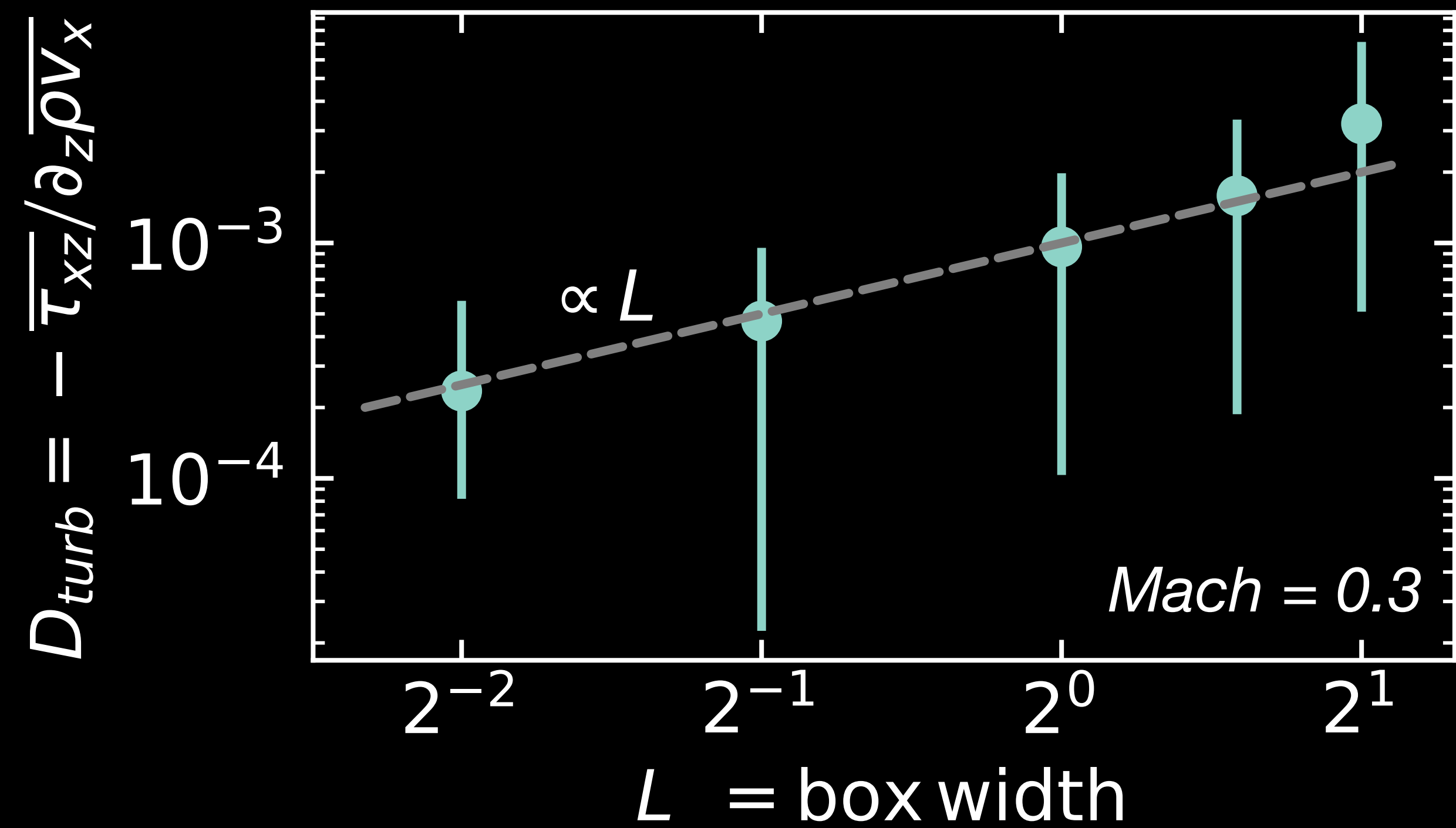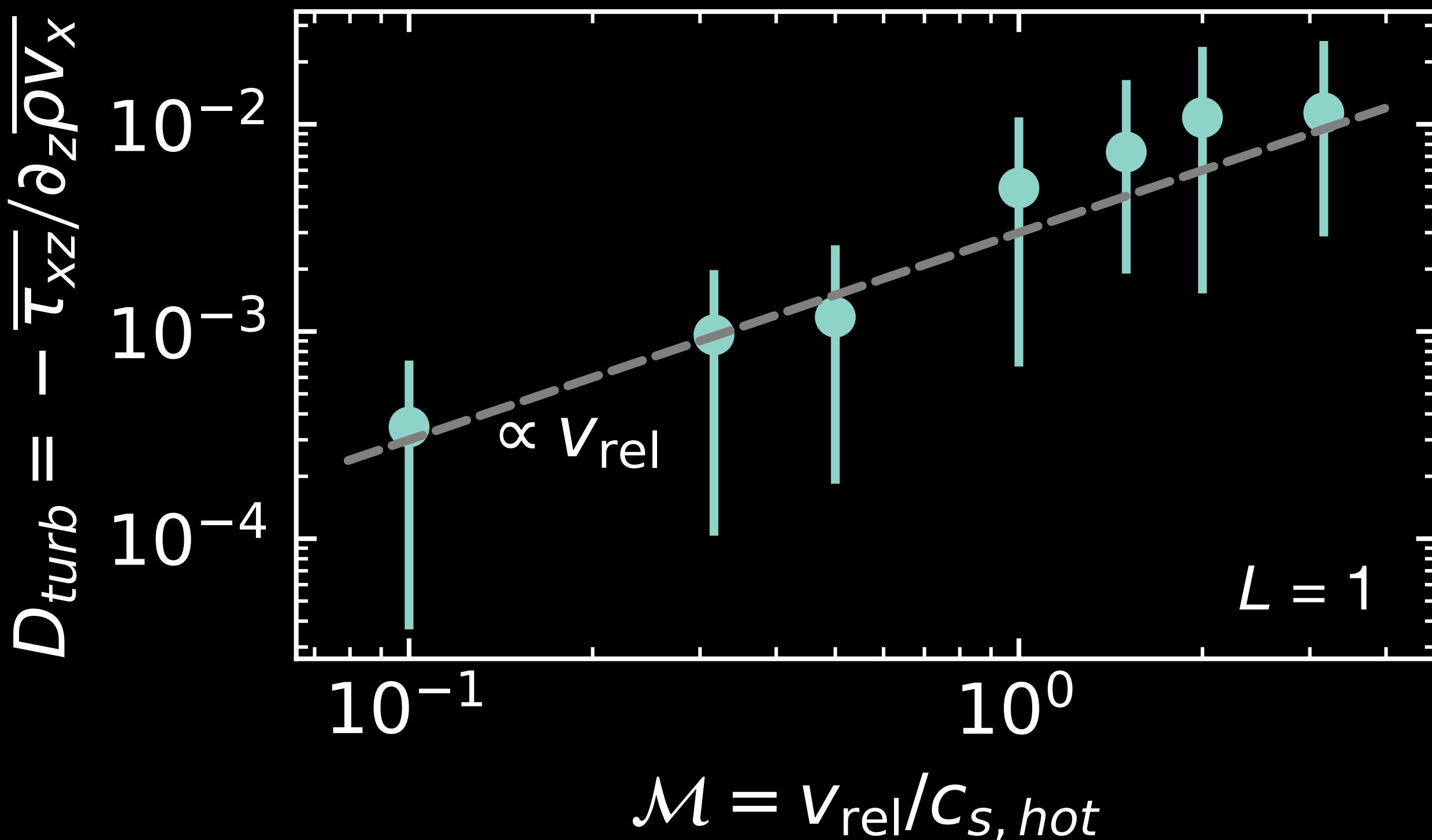
$$D_{turb} \propto L v_{rel} \quad ?$$

effective turbulent diffusivity

$$D_{turb} \propto L v_{rel} \checkmark$$

$D_{turb} = -\overline{\tau_{xz}}/\partial_z\overline{\rho v_x}$

10^{-2}

10^{-3}

10^{-4}

$\propto v_{rel}$

$L = 1$

10^{-1} 10^{0}

$\mathcal{M} = v_{rel}/c_{s,\,hot}$

$D_{turb} = -\overline{\tau_{xz}}/\partial_z\overline{\rho v_x}$

10^{-3}

10^{-4}

$\propto L$

$Mach = 0.3$

2^{-2} 2^{-1} 2^{0} 2^{1}

L = box width

no cooling, density contrast = 10