

each system has:

Characteristic relaxation
time, or equilibrium time
which can be fast even though
overall equilibrium time is
slow; if can divide big
system into small systems
and small systems are in
reasonable eq.

$\frac{\partial T(r,t)}{\partial t} \propto \nabla^2 T(r,t)$ eq. of
heat conduction

fluid eq.

$\rho(r,t)$ Boltzmann eq.