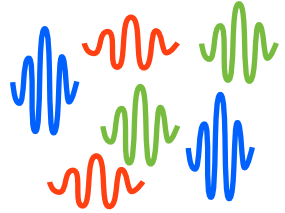


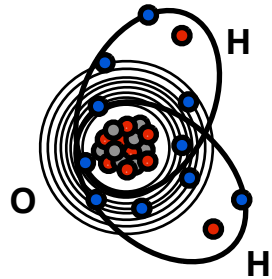
Microscopic world (photons, atoms, molecules)

Scaling
→

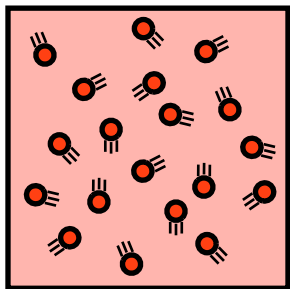
Macroscopic world (gases, fluids)



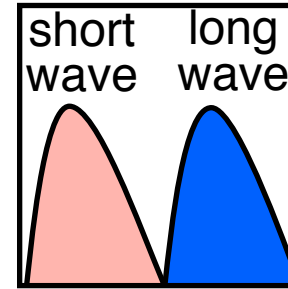
Photons as discrete quanta of electromagnetic radiation



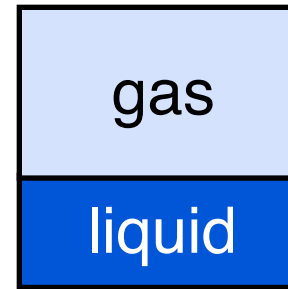
Discrete electronic states in molecules and molecular bonds



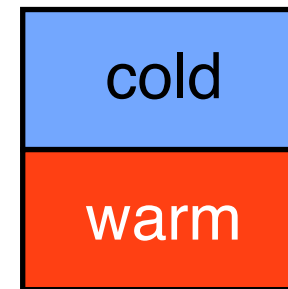
Discrete modes of vibration, rotation and translation of molecules



Radiative entropy:
higher entropy of longer wavelengths



Molar entropy:
higher entropy of gases and molecules



Thermal entropy:
higher entropy of warm (and mixed) reservoirs