

Ludwig Boltzmann 1844-1906



Statistical Mechanics, and kinetic theory of gases,
Based on atoms and molecules.

Opposed Mach & Oswald: energy is all, no atoms.

Second law of
Thermodynamics:
Entropy increase -
Disorder increases.

$$S = k_B \cdot \ln W$$

Boltzmann's equation:
distribution of molecules position and speed f

$$\frac{\partial f}{\partial t} + v \frac{\partial f}{\partial x} + \frac{F}{m} \frac{\partial f}{\partial v} = \frac{\partial f}{\partial t} \Big|_{\text{collision}}$$

