Final Assignment: The system

- We consider an extremely simplified setup.
  - N particles
  - Only discrete energies
  - We disregard motion and focus on **energy exchange**
  - One minimal energy level E_0 (**ground state)**
  - Equally spaced energy levels at **constant separation** $\Delta E = E_0$
  - All energies are measured in units of E_0

Final Assignment: Evolution

1. We start with all particles at the **same initial energy** $E_1=E_0+\Delta E$

2. At every step, we **randomly select** a **first** particle and a **second** particle. If the first particle is not on the ground state

    a. we move the **first** particle **down** by one energy level

    b. We move the **second** particle **up** by one energy level

3. This energy exchange keeps the **total energy fixed**.