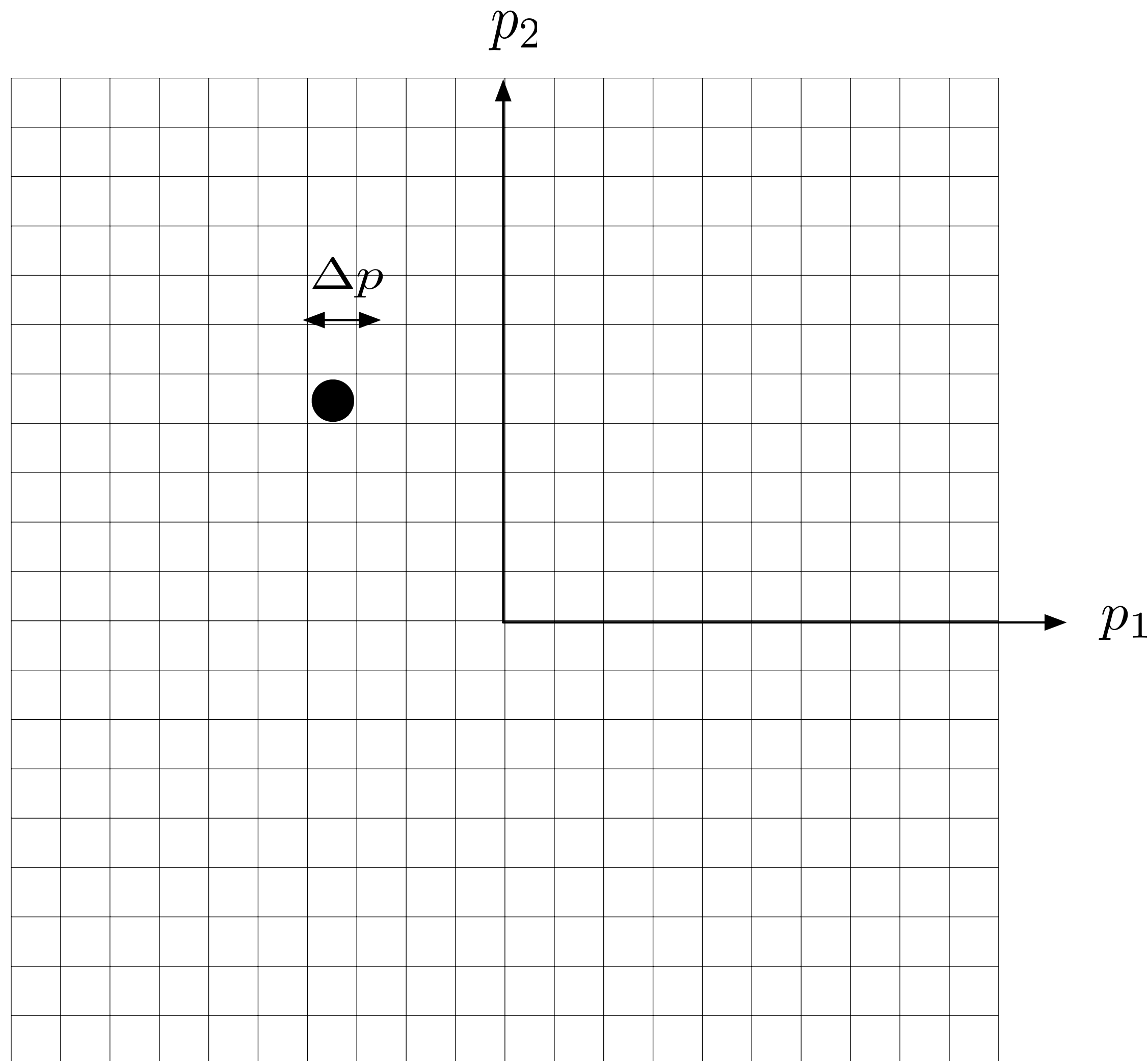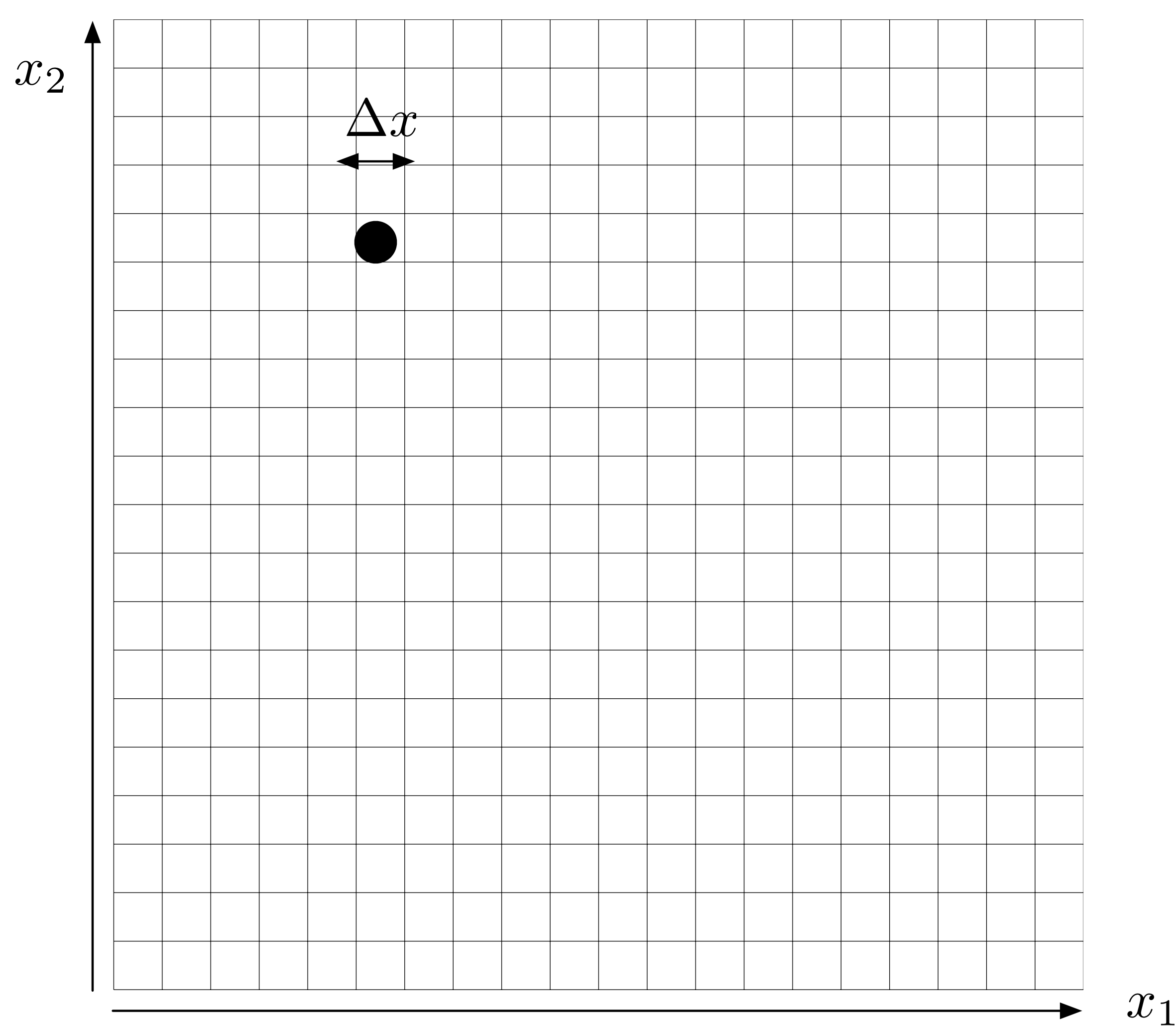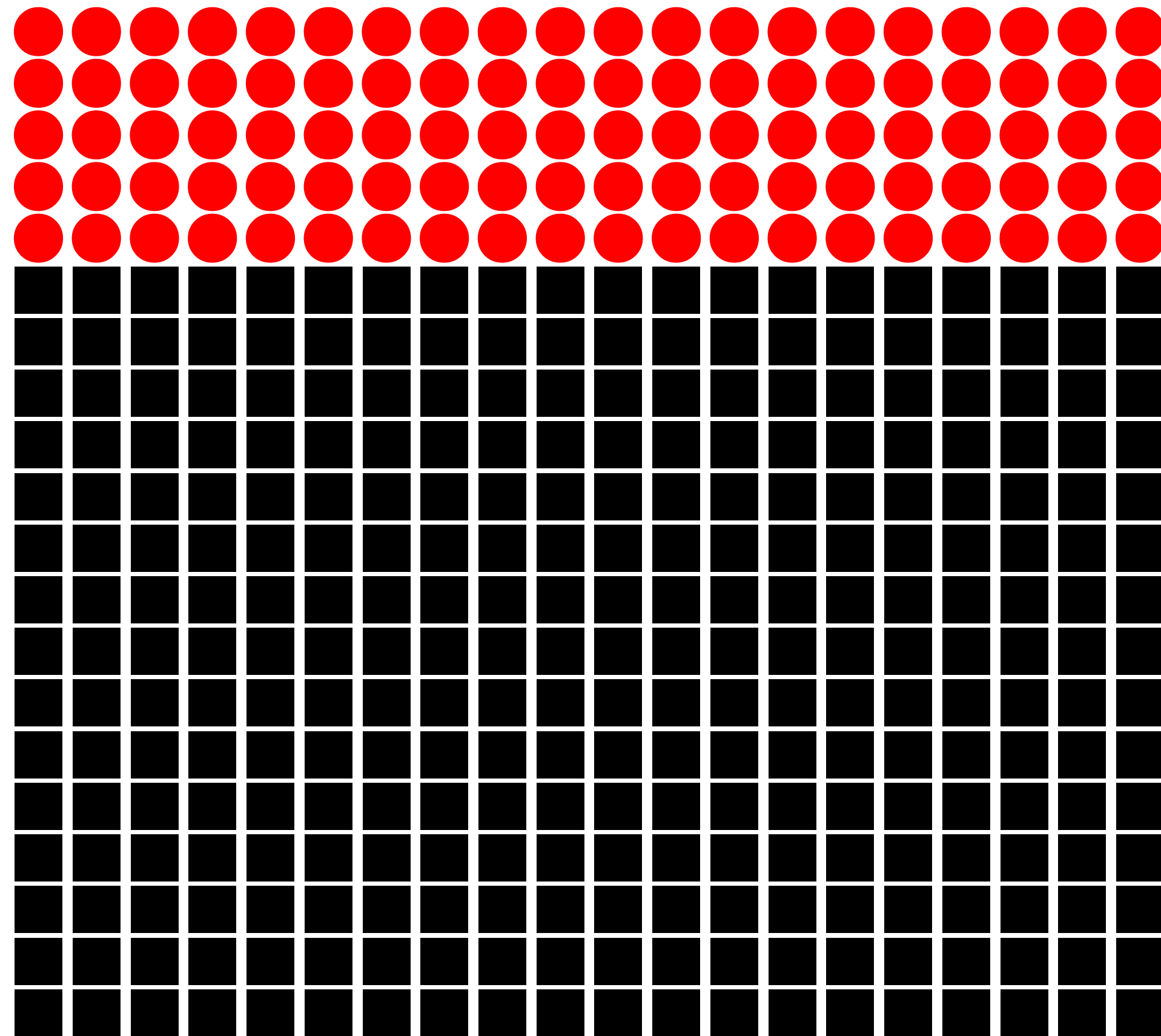Two particle phase space: the dot represents a micro state
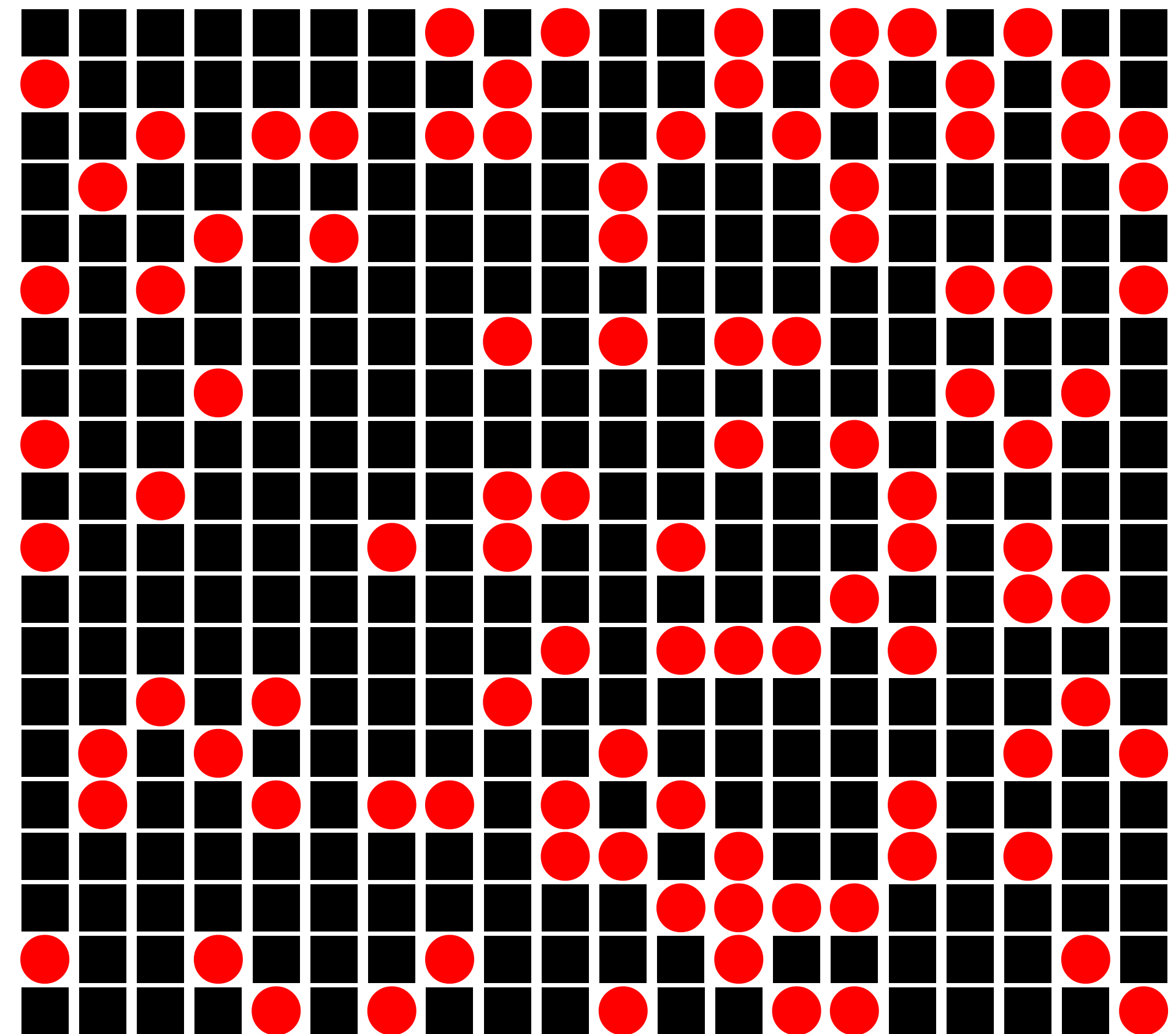To count the phase space we divide it in bins of size $h = \Delta x \Delta p$

Ordered versus typical state: e^{225} states in total

Ordered state: 400 atoms, 1/4 are excited, $E = 100\,\Delta$

a typical state: the energy is still, $E = 100\,\Delta$