Nucleic Acid Crystallography

Structure Solution

How can we estimate the phase of our reflections?

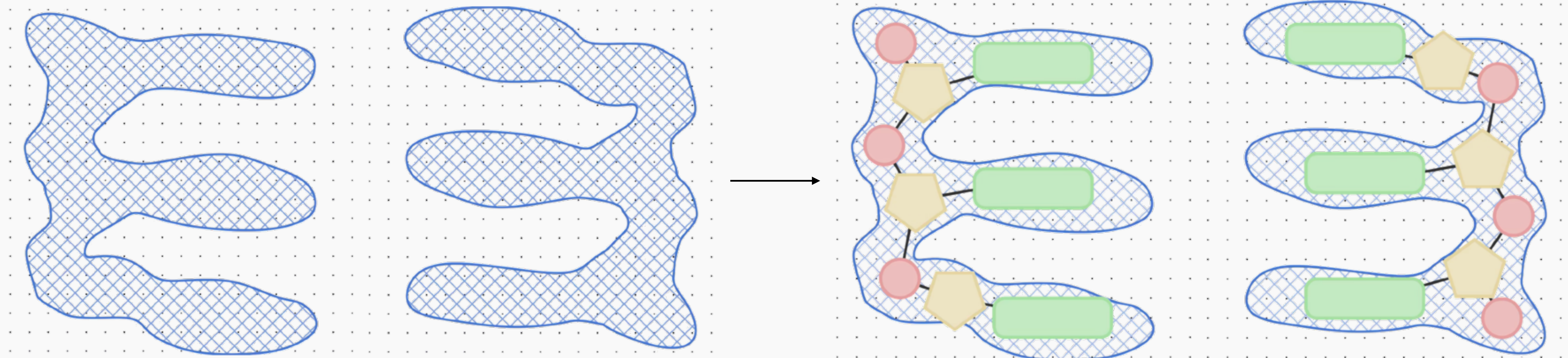**Use prior knowledge**

Molecular Replacement

Use physical properties

Experimental Phasing

$$\rho(x, y, z) = \frac{1}{V} \sum_h \sum_k \sum_l |F_{hkl}| e^{2\pi i \phi_{hkl}} e^{-2\pi i(hx+ky+lz)}$$

Nucleic Acid Structure Solution
Model Building

Density

2mFo-DFc or charge density

Atomic Model