Constraints & Information Space

SAXS measures an averaged transform of real-space distances:

$I(q)$ is purely *experimental space*, Information is determined by the finite q-range, noise, beamstop, resolution (Information space). The spatial averaging makes $p(r)$ a stable distance descriptor.

Experimental space: the measured $I(q)$.

Information space: what survives sampling, noise, and normalisation, background subtraction.

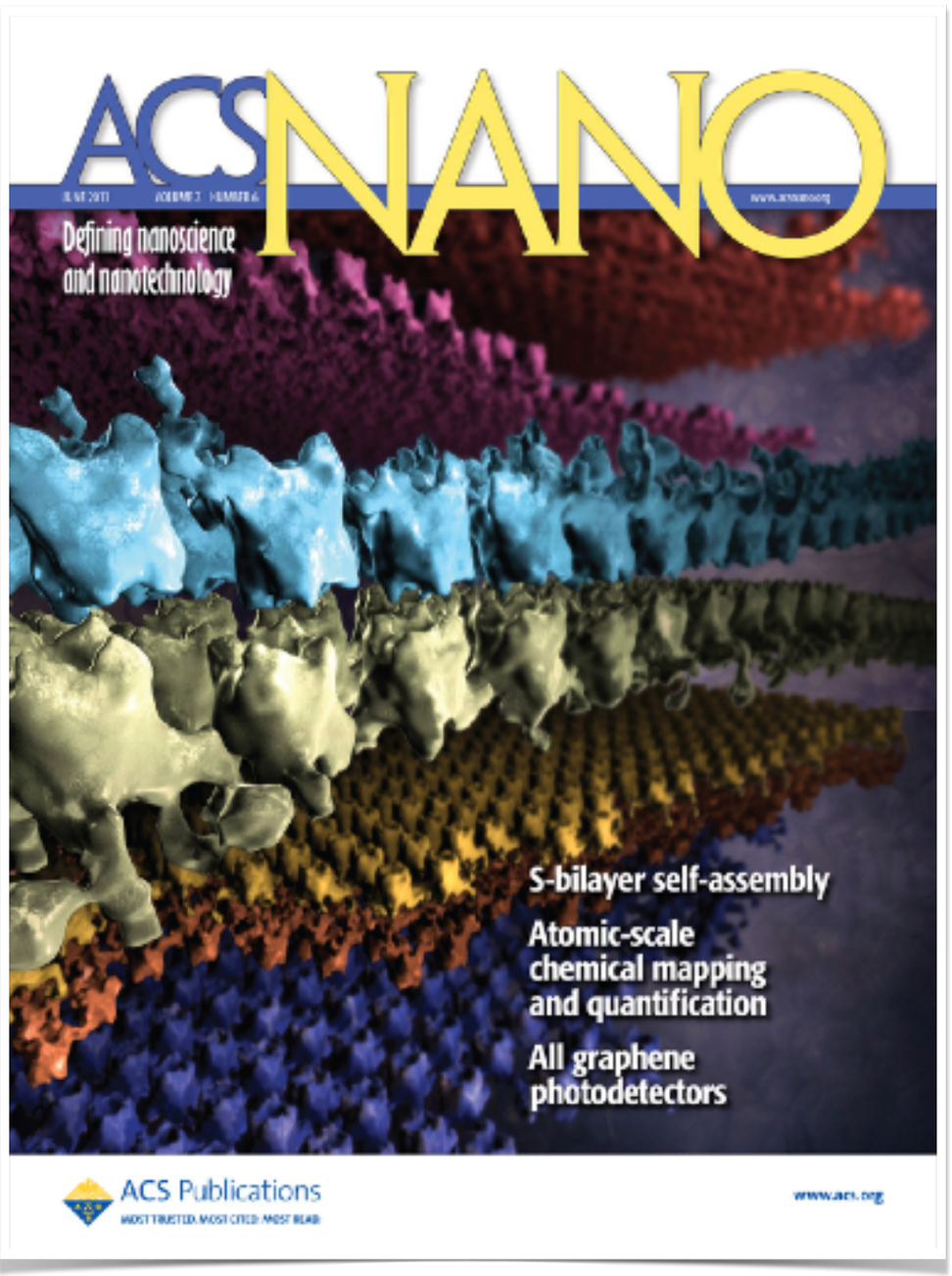
Model space: structural hypotheses consistent with the available information, $p(r)$.

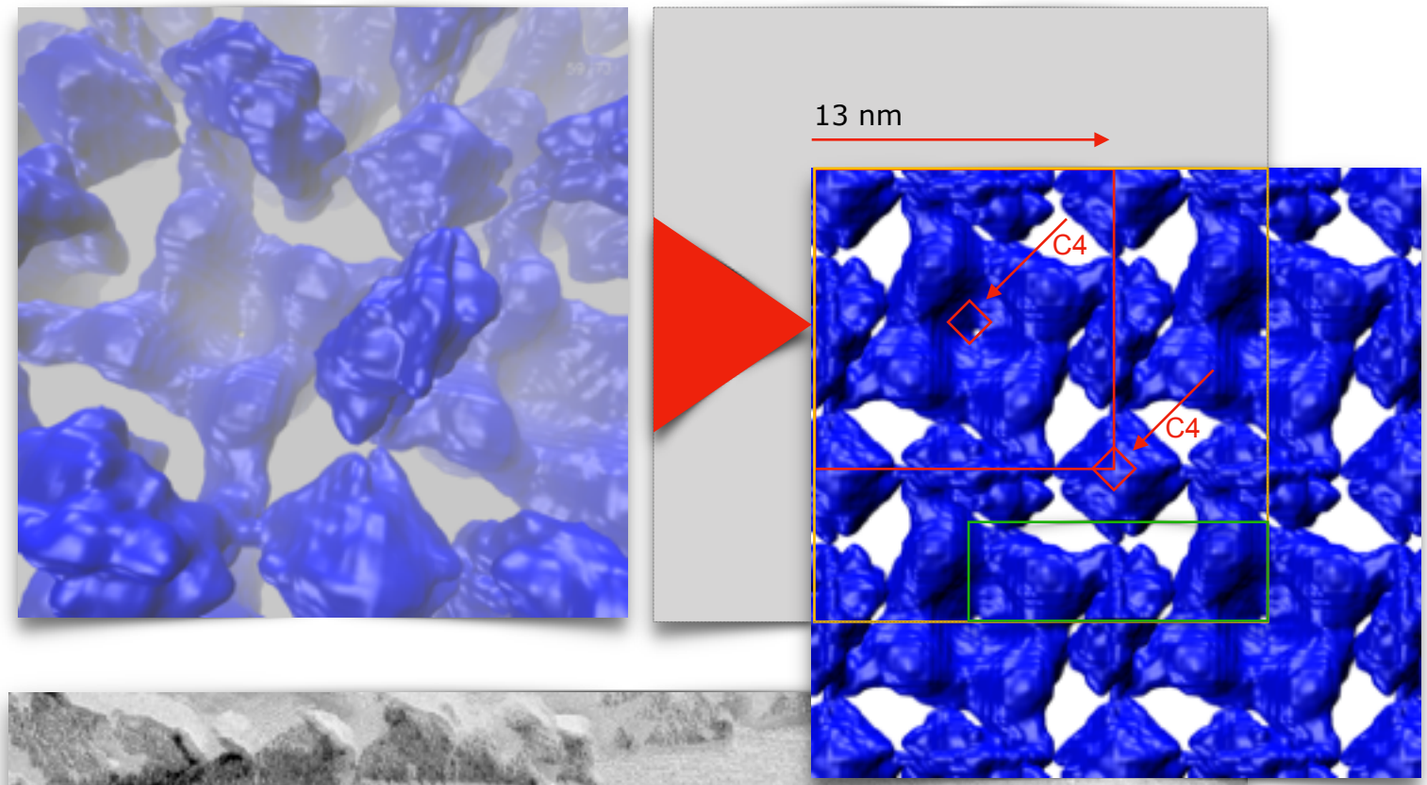
Proper normalisation respects Shannon sampling, positivity of $p(r)$ (where appropriate), and avoids hidden priors.

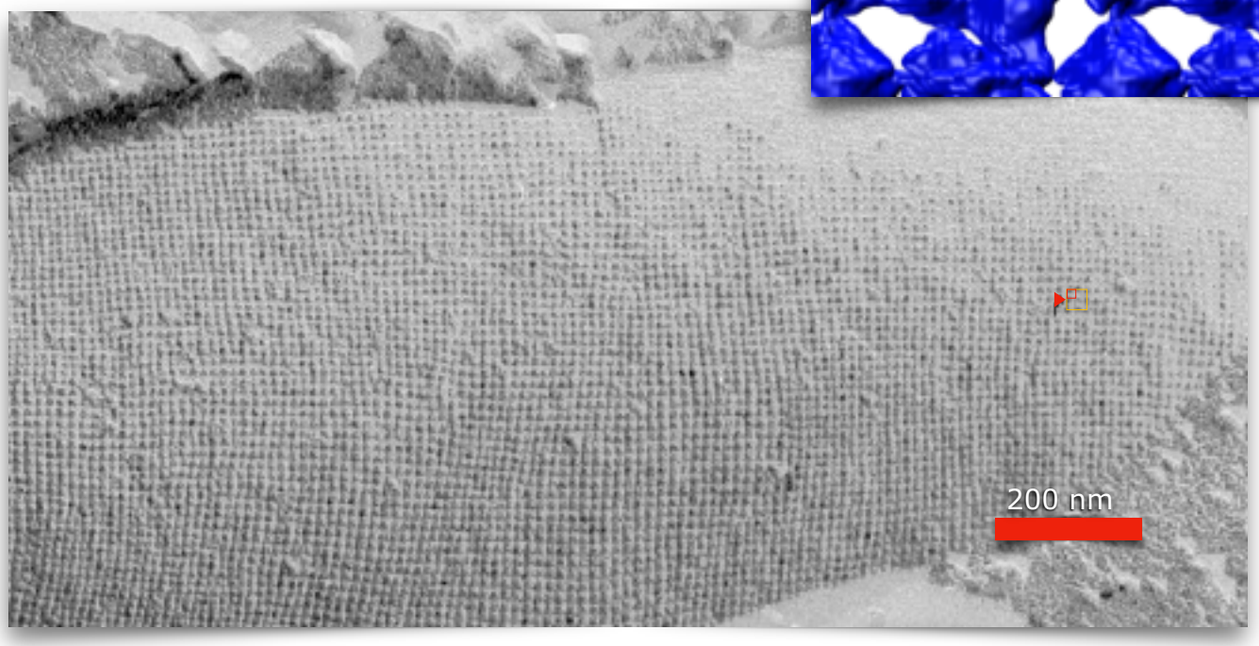
The goal is to make the **information content** of $I(q)$ explicit *before* any structural interpretation.

Combination of Experiments

Pictures and Correlations







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