

Objective:

Implement surface roughness with scattering self-energies and compare against explicit case.

Problem:

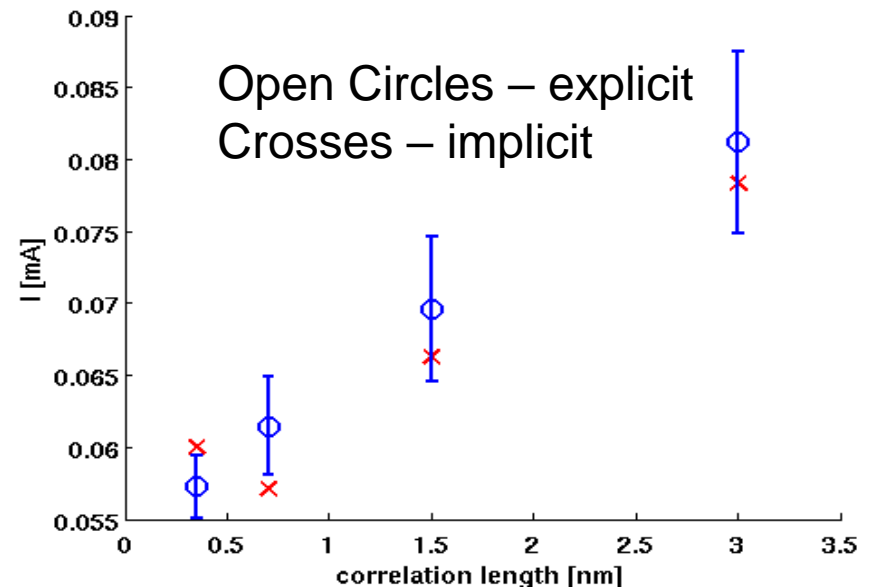
Explicit surface roughness requires many samples and for periodic structures can lead to unphysical resonances.

Approach:

- Scattering self-energy where the statistics are included implicitly. Scattering is nonlocal.
- Compare to explicit case in which many samples are realized.

Results/Impact:

Implemented surface roughness with reasonable agreement to explicit case for different correlation lengths and RMS step height.



3x3x20 nm Si wire in effective mass