

Motivation

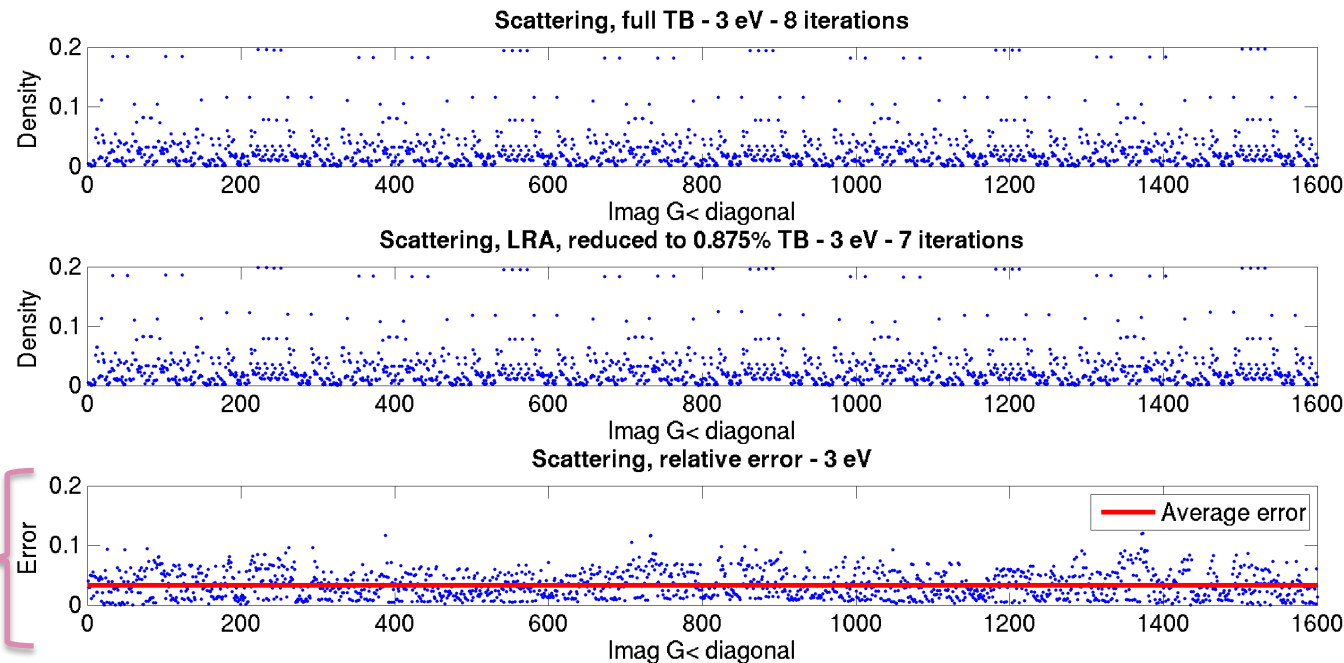
- QTBM is a highly stable and fast way to solve for device modes
- System block matrices can be reduced from thousands of rows to tens of rows

Approach

- System is filtered to include only degrees of freedom that contribute to propagating modes
- Using ballistic QTBM solution, self-consistent scattering calculations are performed with low rank matrices

Results

- Elastic scattering low rank solution shows low error when compared to full basis solution



Electron density contribution per orbital shown

Avg. error <5%