

Objective

- To reduce the cost of resolving and integrating sharp features in integrands.

Approach

- Low accuracies are sufficient for engineering applications.
- Existing adaptive quadrature methods cannot capture sharp features at low node counts.
- Using a 5 point scheme nodes are added based on local integral convergence.
- Sharp features in transmissions can be captured with very few nodes.

Impact

- Has the potential to reduce the simulation time and memory footprint significantly.

