

**VERTEX '25** (August 2025, University of Tennessee, Knoxville)

Title: **EIC vertex and tracking detector**

Abstract by James Glover (University of Birmingham) on behalf of the ePIC SVT detector subsystem collaboration

The Electron-Ion Collider facility at Brookhaven National Laboratory will enable a rich science programme with its high luminosity, high energy collisions of electrons with protons and ions. ePIC is the first detector being developed for this new facility. It is to be ready for data taking in the early 2030s. The ePIC detector will utilise an innermost, high resolution Silicon Vertex Tracker, able to precisely measure primary and secondary vertices as well as particle momentum with wide acceptance. This presentation will give an overview of the ePIC Silicon Vertex Tracker geometry, projected performance, development and design of ultra-thin detector layers with large area coverage.