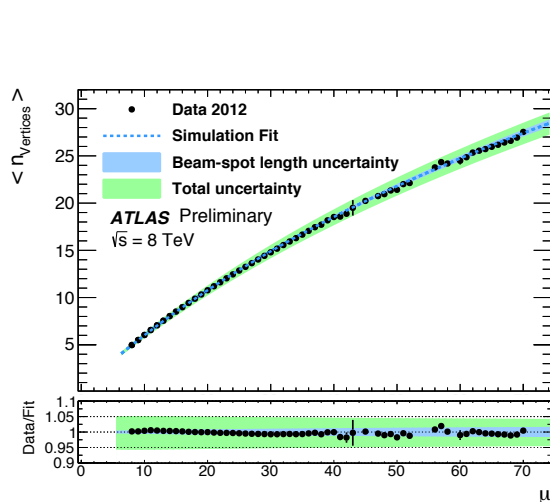
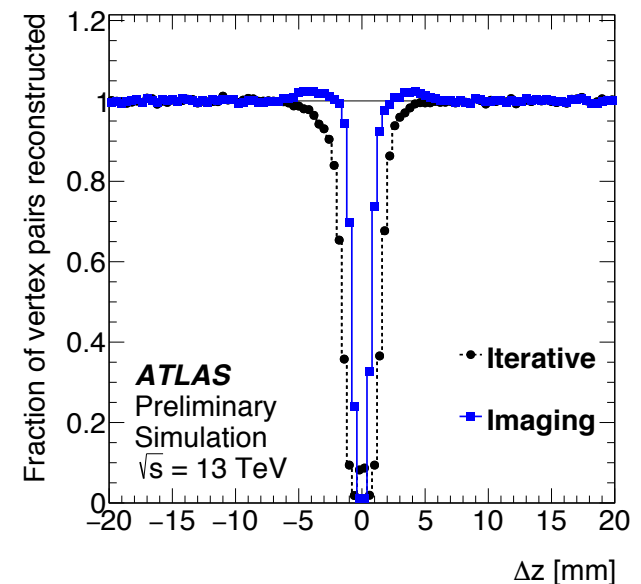
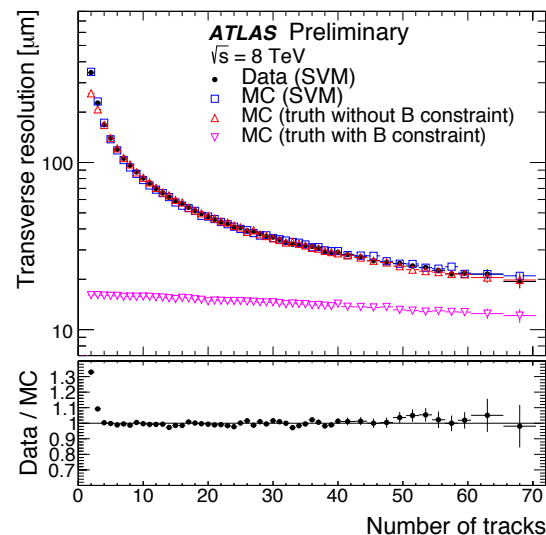


Primary Vertex Reconstruction at ATLAS: Highlights

- The ATLAS Primary Vertex reconstruction algorithm continues to deliver precise and well understood vertices with very high efficiency for hard scatter interactions.
- One of the main challenge for the future is mediating the effects of pile up on reconstruction efficiency for pile-up vertices, and the effect of pile-up tracks on Hard Scatter position resolution and precision
- Possible improvements to the reconstruction algorithm are being studied for μ up to 200 and for changes in beam spot shape



Well modeled efficiency and resolution



Effect of algorithm changes on resolution