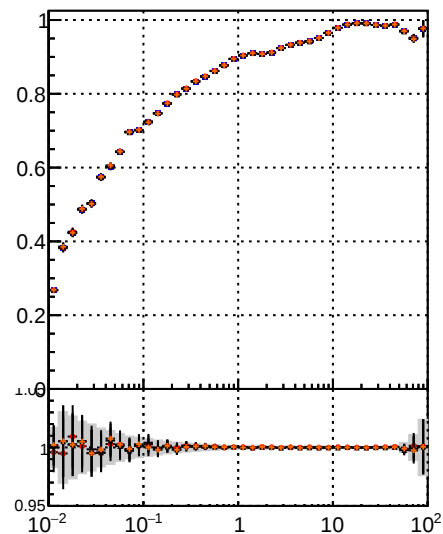
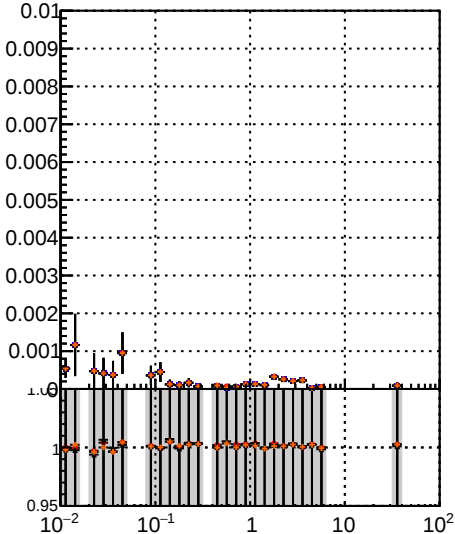


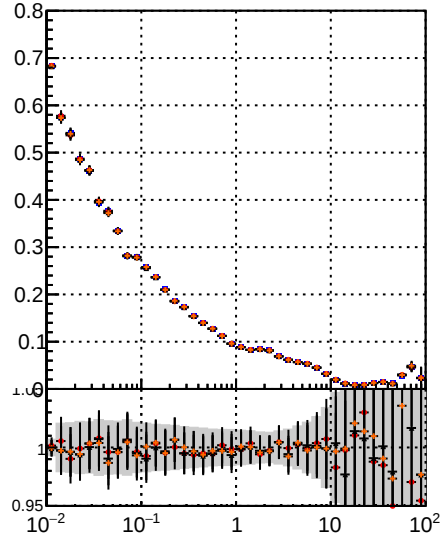
Fake rate vs vertpos



Duplicates Rate vs vertpos



Pileup rate vs vertpos



BQM TT MS

BQM TT MS

det0

det01

Plot of Fake rate vs sim PV z. The x-axis ranges from -30 to 30. The y-axis ranges from 0.95 to 1.0. The data points (red circles) show a dip from approximately 0.95 at $z = -30$ to 0.75 at $z = 0$, then rise back to 0.95 at $z = 30$. A horizontal line is drawn at y=1.0. A shaded region is visible at the bottom of the plot.

Plot of Duplicates Rate vs sim PV z. The x-axis ranges from -30 to 30. The y-axis ranges from 0.95 to 0.01. The data points (red circles) show a peak from approximately 0.001 at $z = -30$ to 0.01 at $z = 0$, then decrease back to 0.001 at $z = 30$. A horizontal line is drawn at y=1.0. A shaded region is visible at the bottom of the plot.

Plot of Pileup rate vs sim PV z. The x-axis ranges from -30 to 30. The y-axis ranges from 0.95 to 0.5. The data points (red circles) show a peak from approximately 0.05 at $z = -30$ to 0.25 at $z = 0$, then decrease back to 0.05 at $z = 30$. A horizontal line is drawn at y=1.0. A shaded region is visible at the bottom of the plot.

Fake rate vs. sim PV z

Plot of Fake rate vs. sim PV z. The x-axis ranges from -20 to 20. The y-axis ranges from 0.95 to 1.0. The data points (red circles) show a dip from approximately 0.95 at $z = -20$ to 0.75 at $z = 0$, then rise back to 0.95 at $z = 20$. A horizontal line is drawn at y=1.0. A shaded region is visible at the bottom of the plot.

Duplicates Rate vs sim PV z

Plot of Duplicates Rate vs sim PV z. The x-axis ranges from -20 to 10. The y-axis ranges from 0.95 to 0.01. The data points (red circles) show a peak from approximately 0.001 at $z = -20$ to 0.01 at $z = 0$, then decrease back to 0.001 at $z = 10$. A horizontal line is drawn at y=1.0. A shaded region is visible at the bottom of the plot.

Pileup rate vs. sim PV z

Plot of Pileup rate vs. sim PV z. The x-axis ranges from -20 to 20. The y-axis ranges from 0.95 to 0.2. The data points (red circles) show a peak from approximately 0.05 at $z = -20$ to 0.25 at $z = 0$, then decrease back to 0.05 at $z = 20$. A horizontal line is drawn at y=1.0. A shaded region is visible at the bottom of the plot.