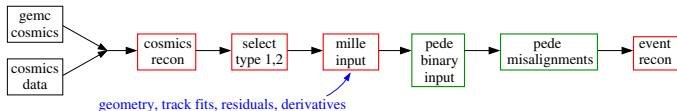
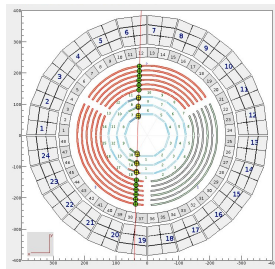


# SVT Track-Based Alignment With Millepede

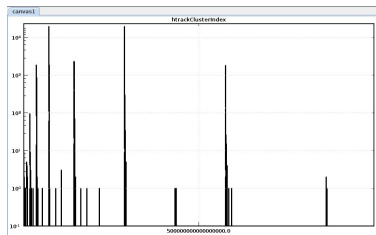
- ① Analysis chain: red boxes - Java; green boxes - C<sup>++</sup>.



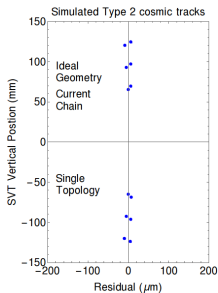
- ② gmcc version 4.3.0; COATJAVA 5.7.4; Tracker - latest.



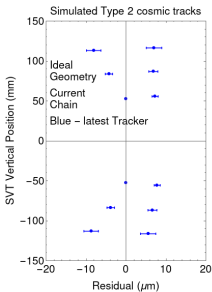
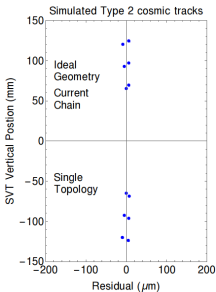
Select a single, type-2 topology by setting bits for each layer-sector and histogramming the result. Require twelve, single-hit clusters, no repeated sensors and pick the most common one.



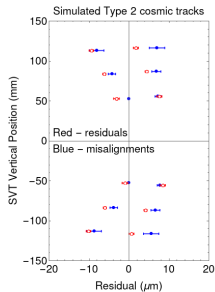
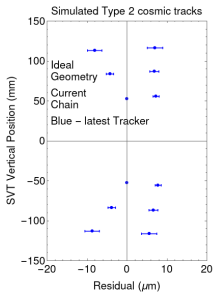
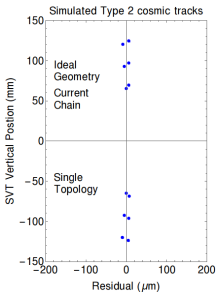
# Millepede Fits: Type-2, Single Topology, Ideal Geometry



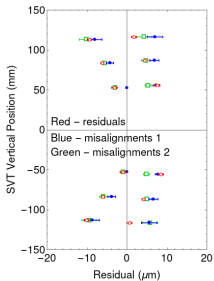
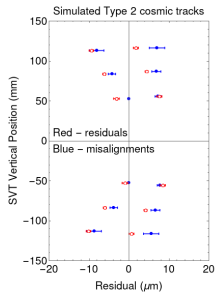
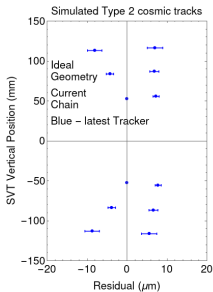
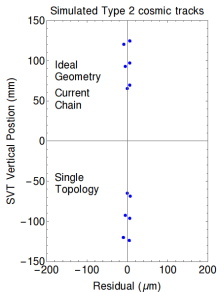
# Millepede Fits: Type-2, Single Topology, Ideal Geometry



# Millepede Fits: Type-2, Single Topology, Ideal Geometry

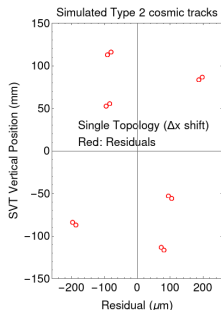


# Millepede Fits: Type-2, Single Topology, Ideal Geometry



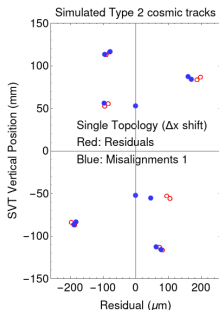
# Millepede Fits: Type-2, Single Topology, Shifted Geometry

## Shifted Geometry ( $\Delta x = 250 \mu m$ )



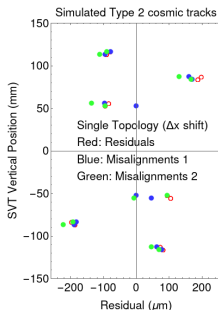
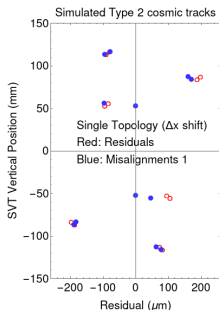
# Millepede Fits: Type-2, Single Topology, Shifted Geometry

## Shifted Geometry ( $\Delta x = 250 \mu m$ )



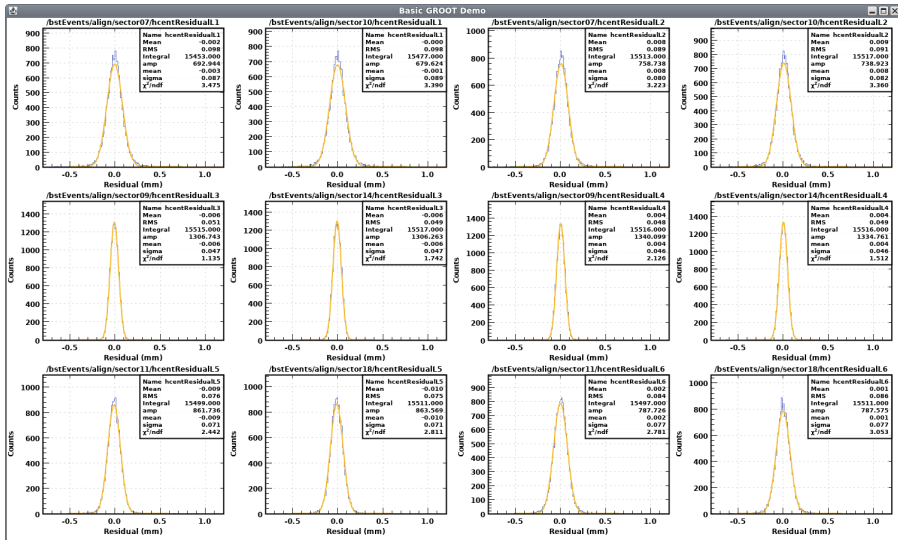
# Millepede Fits: Type-2, Single Topology, Shifted Geometry

## Shifted Geometry ( $\Delta x = 250 \mu m$ )





# Residuals: Type-2, Single Topology, Ideal Geometry



# Residuals: Type-2, Single Topology, Shifted Geometry

$$\Delta x = 250 \mu\text{m}$$

