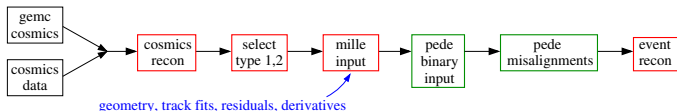
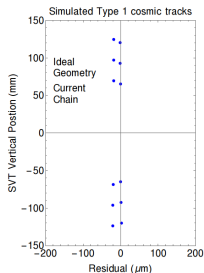


# SVT Track-Based Alignment With Millepede

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



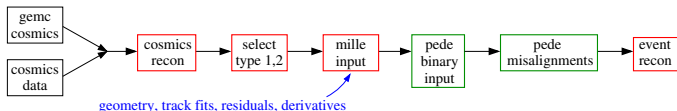
2



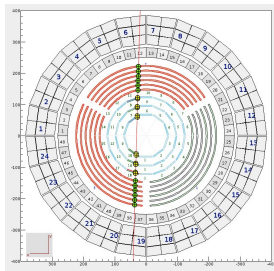
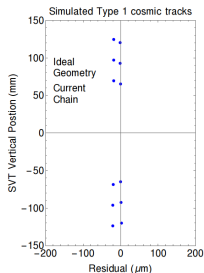
- 3 gemc version 4.3.0; COATJAVA 5.7.4; Tracker - end 2018.

# SVT Track-Based Alignment With Millepede

- 1 Analysis chain: red boxes - Java; green boxes - C++.



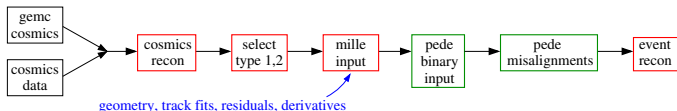
2



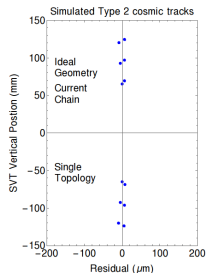
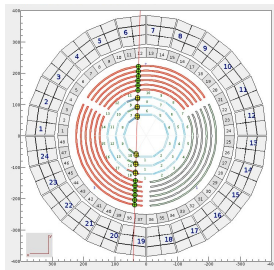
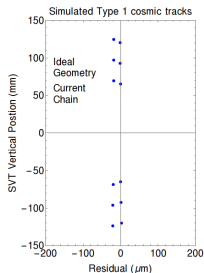
- 3 gemc version 4.3.0; COATJAVA 5.7.4; Tracker - end 2018.

# SVT Track-Based Alignment With Millepede

- 1 Analysis chain: red boxes - Java; green boxes - C++.



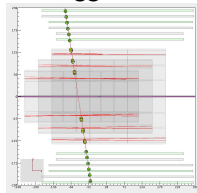
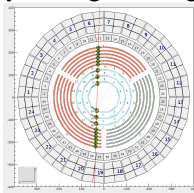
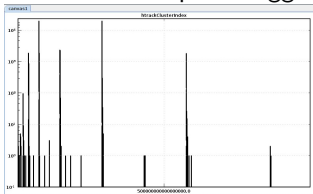
2



- 3 gemc version 4.3.0; COATJAVA 5.7.4; Tracker - end 2018.

# SVT Track-Based Alignment With Millepede

- 4 Selecting single type-2 event topology
  - 1 Construct a 'trigger' consisting of 84 bits (number of SVT sensors) and for each event set a bit for the sensors that have a cluster.
  - 2 Require twelve, single-hit clusters, no repeated sensors.
  - 3 Select most frequent trigger by 'histogramming' the trigger values.



- 4 gemc version 4.3.0; COATJAVA 5.7.4; Tracker - end 2018.
- 5 To do: (1) Run new Tracker/COATJAVA version. (2) Insert shift in *gemc*. (3) Extend to other topologies.