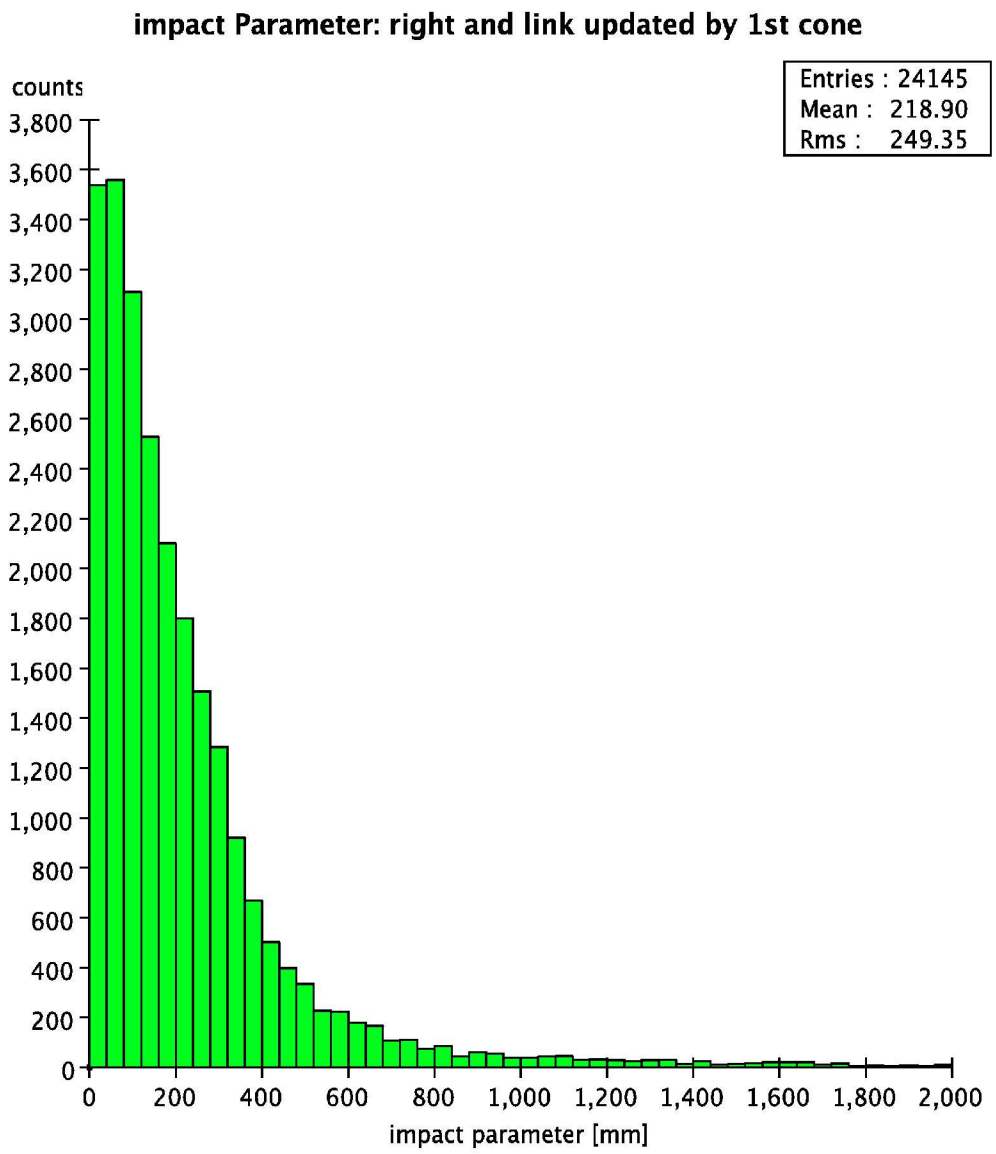
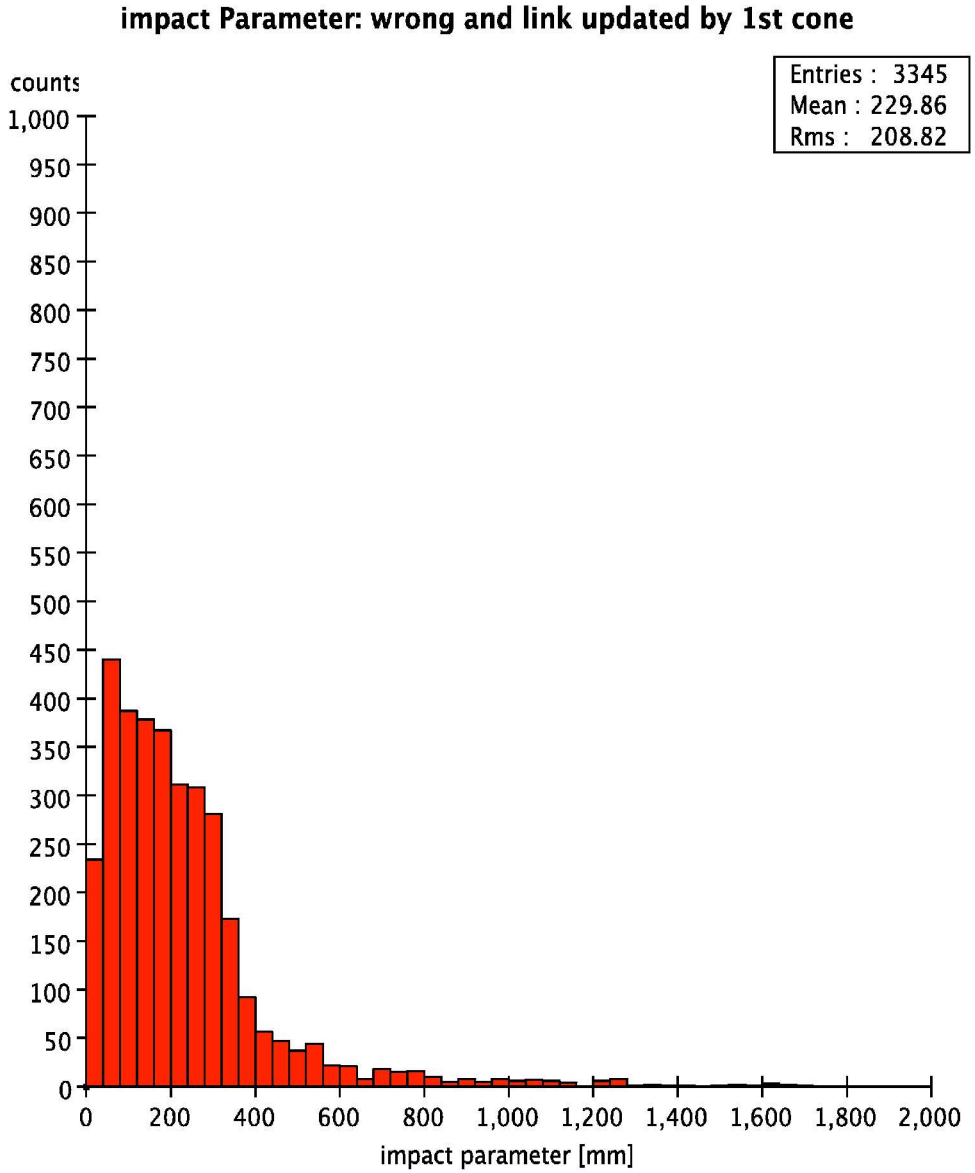
Studying the "1st cone algorithm"

Cases:

- New link – extremely rare.
- Existing link updated – very frequent, studied.
- No change – rare.

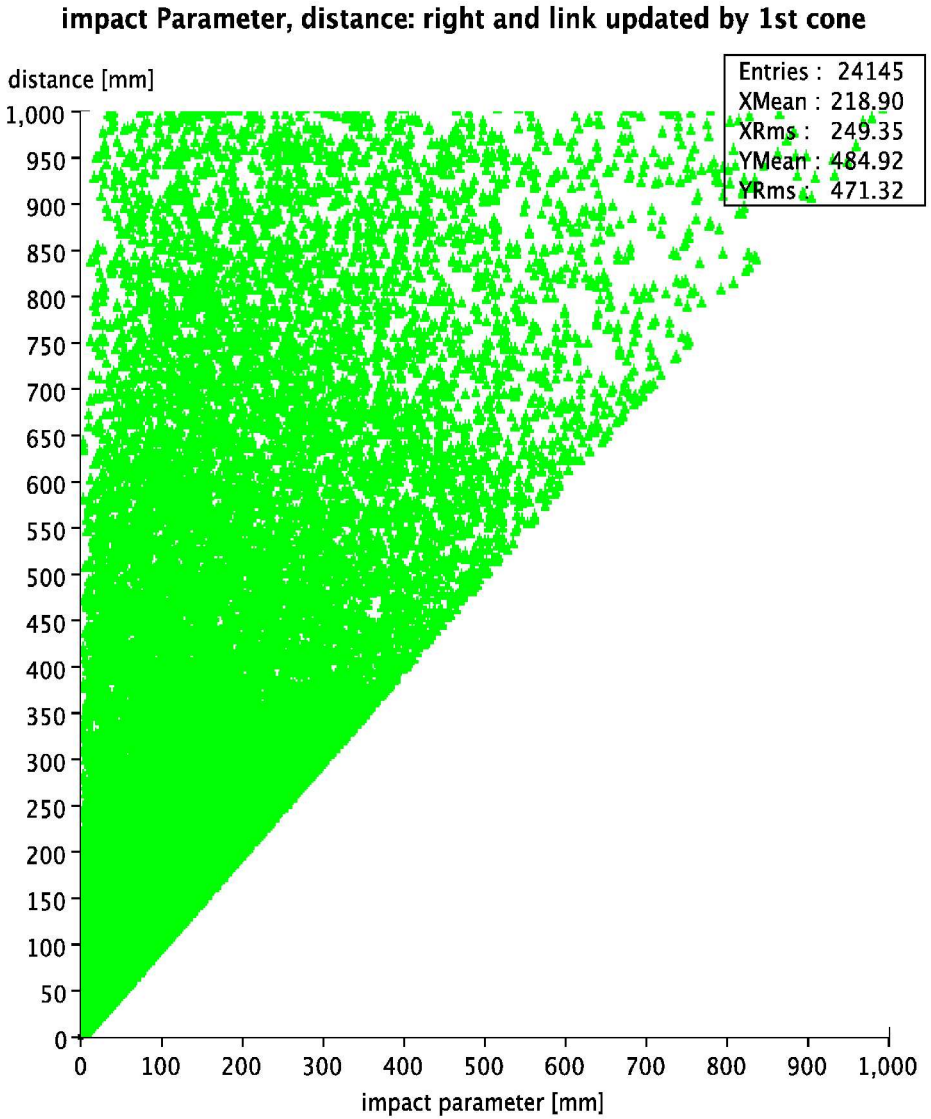
1st cone algorithm: Impact parameter

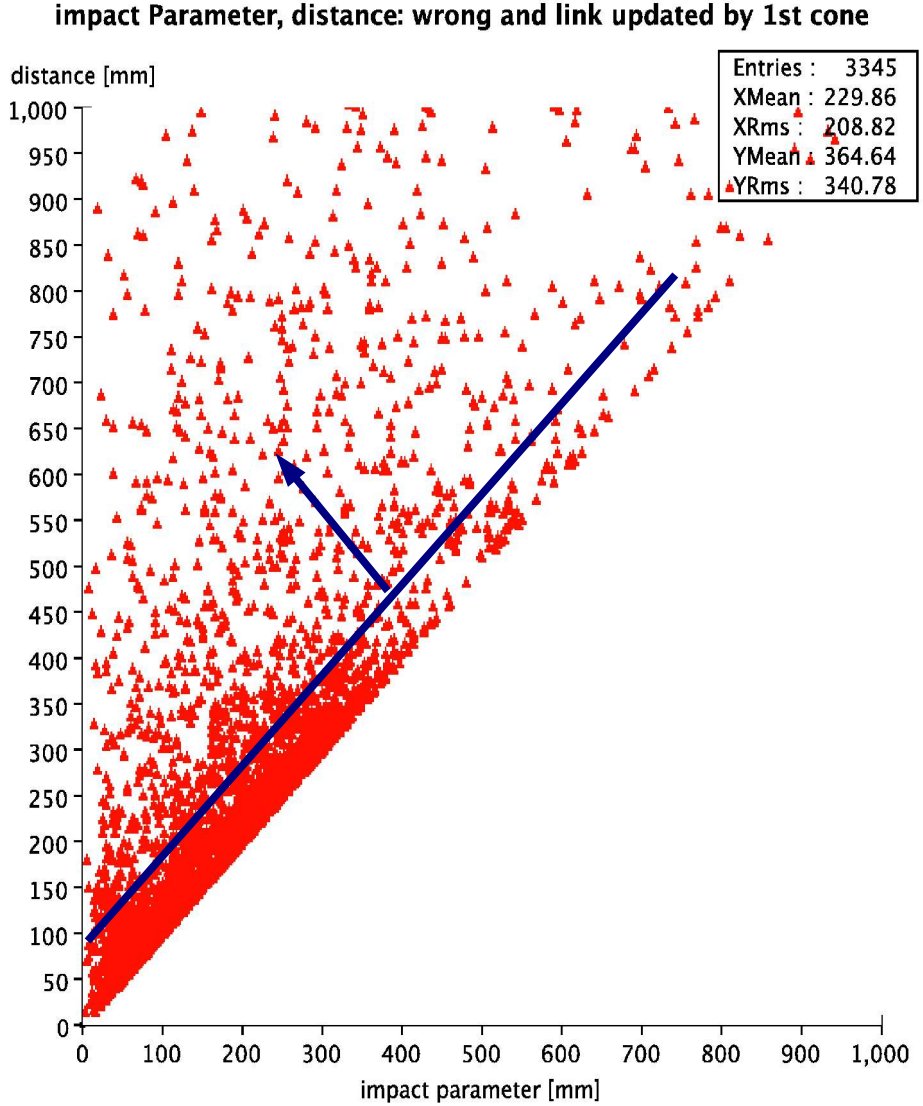




Not separable!

1st cone algorithm: Distance vs. impact parameter

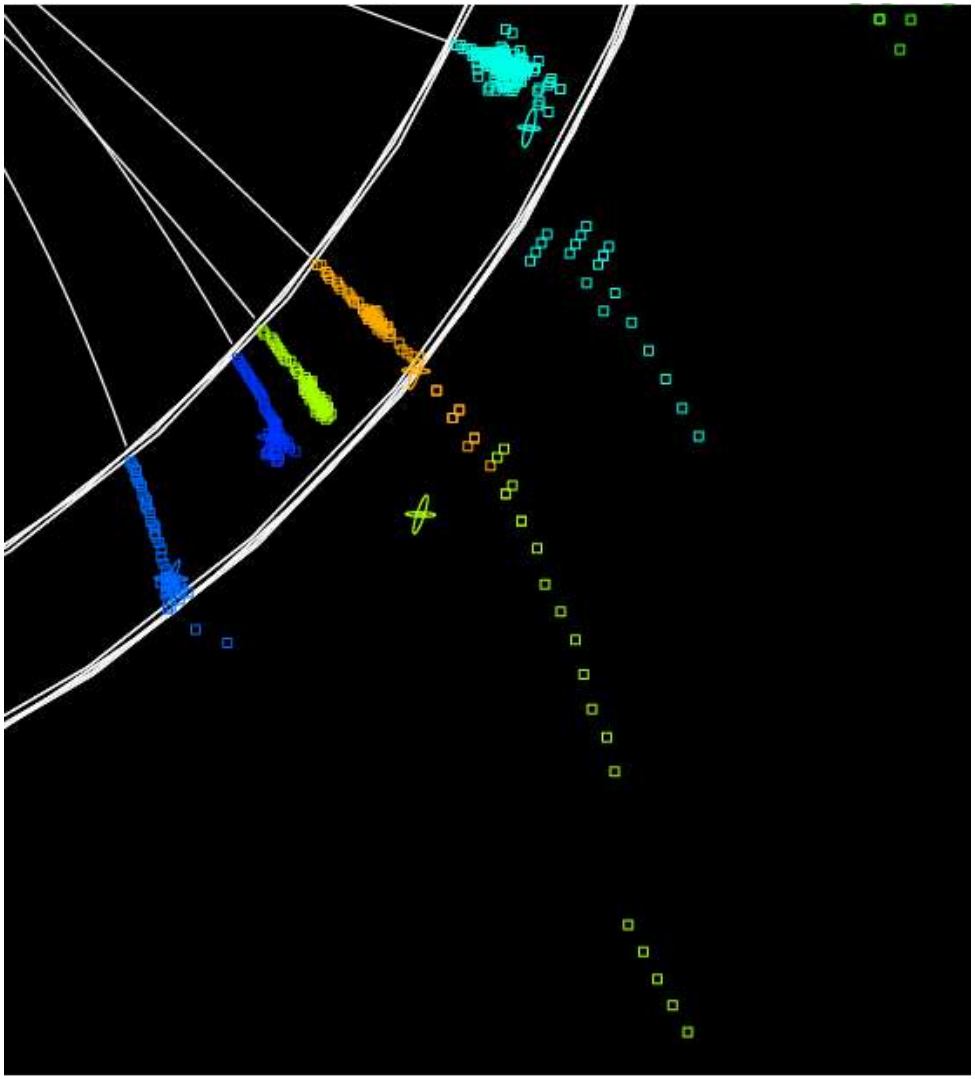


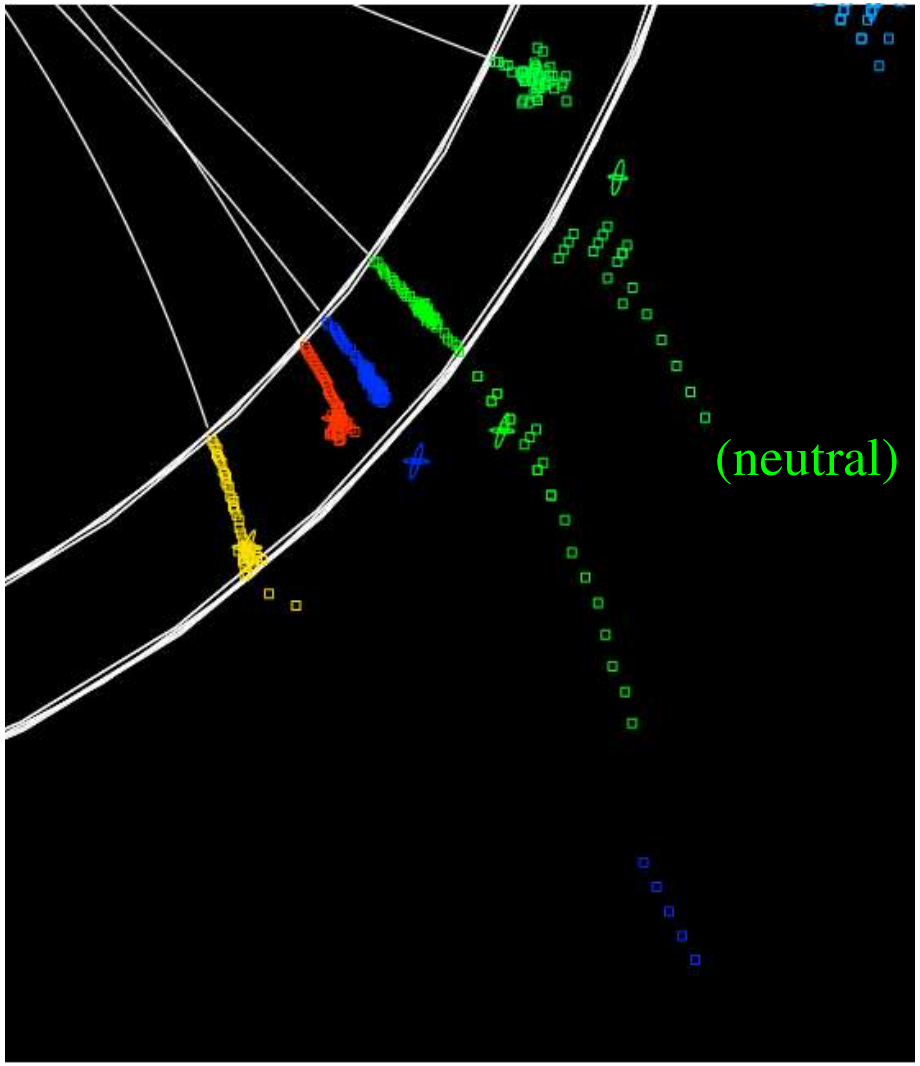


Cut: distance > impact parameter + const

1st cone algorithm: mistakes original vs. cut

500 GeV e^+e^- -> qq, event N° 2

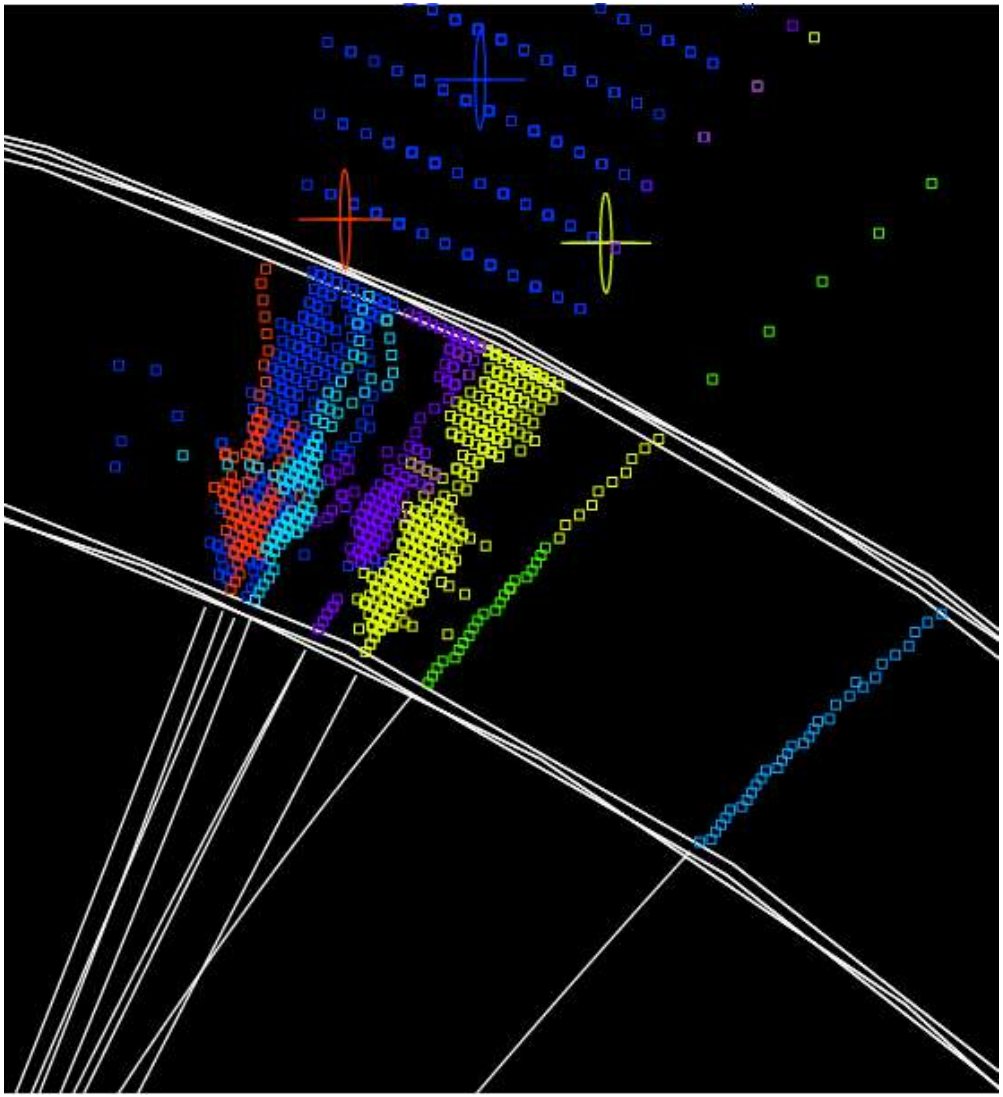


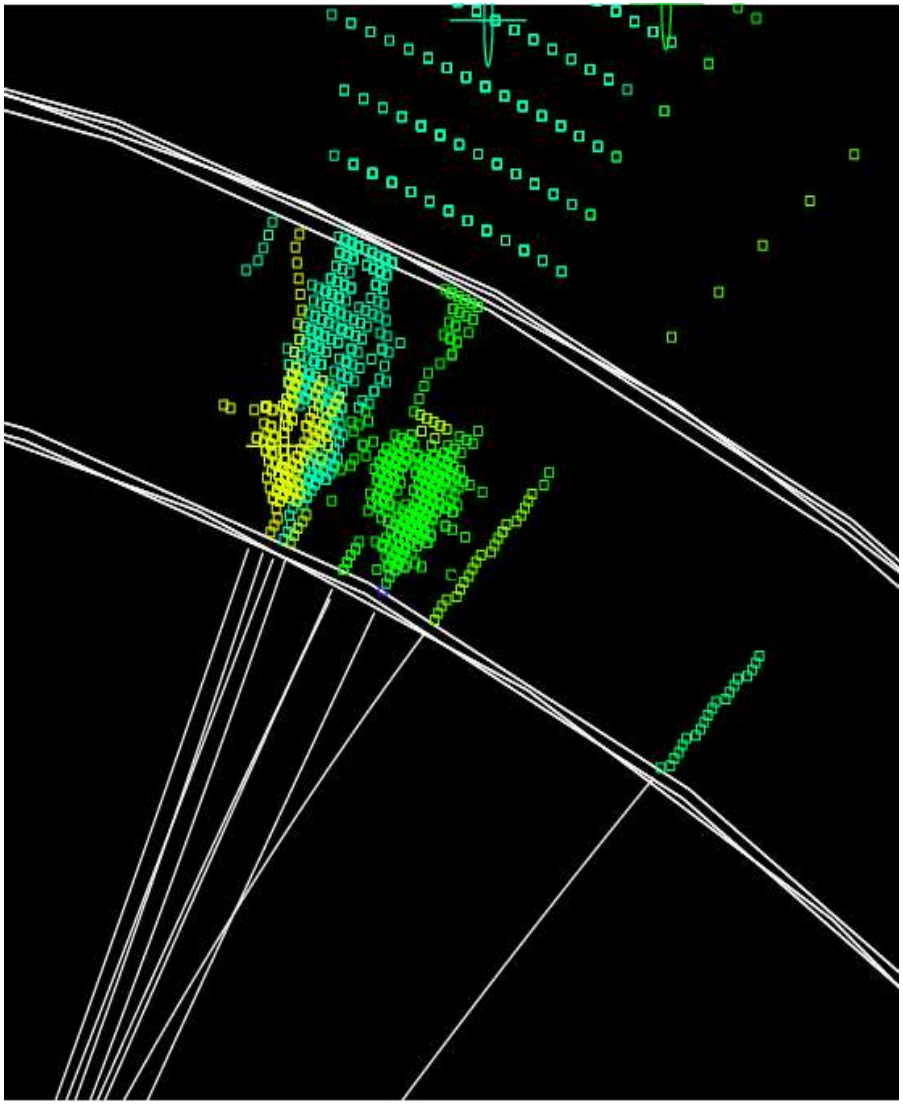


Cut: distance > impact parameter + 200mm (will be tuned)

1st-cone algorithm: mistakes original vs. cut

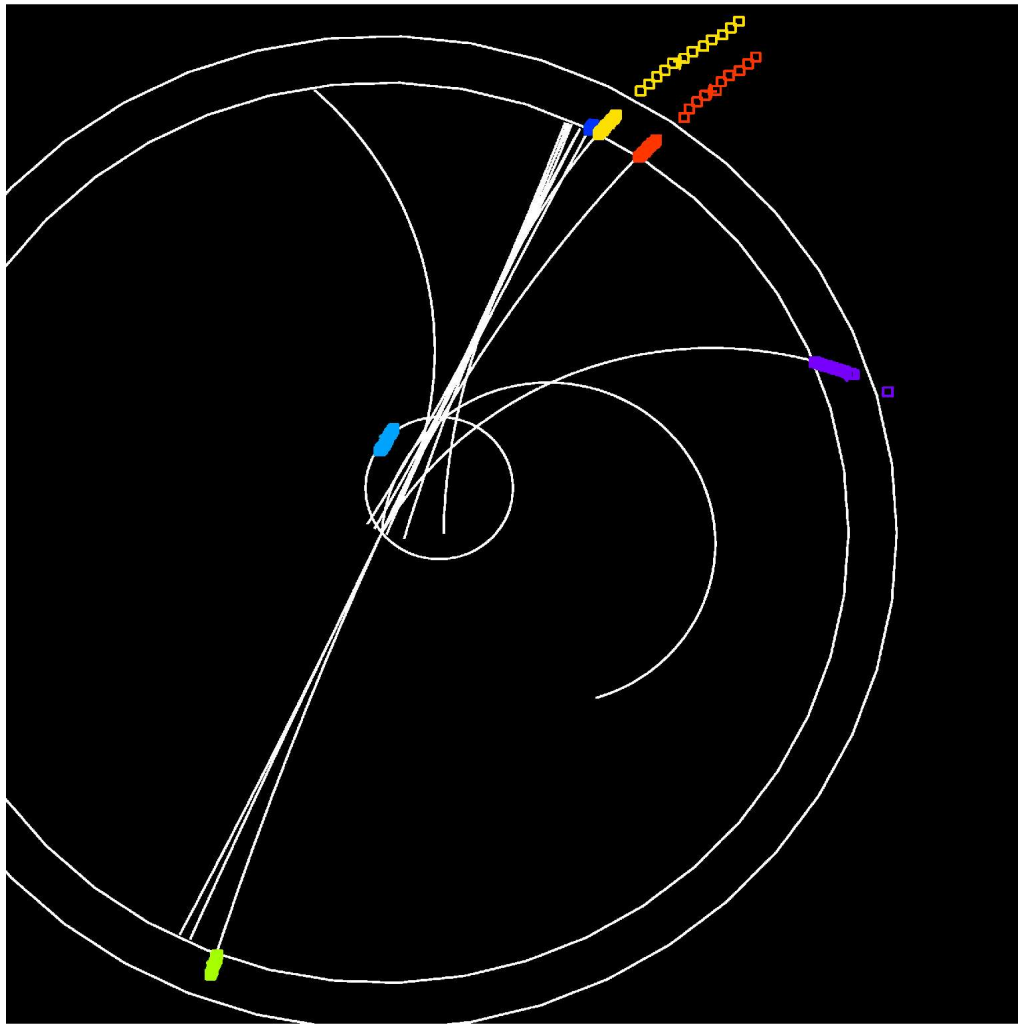
500 GeV e^+e^- -> qq, event N^o 1





Cut: distance > impact parameter + 400mm. 1st cone almost off, incomplete reconstruction!

Preshower mip problem



Plans

- Fix preshower mip
- Tune:
  - Cut 1st cone algorithm
  - Cut 2nd cone algorithm
  - Going backwards with the cone vertex, from shower point:
    - 800mm: “impurity”=11%
    - 200mm: “impurity”= 7%