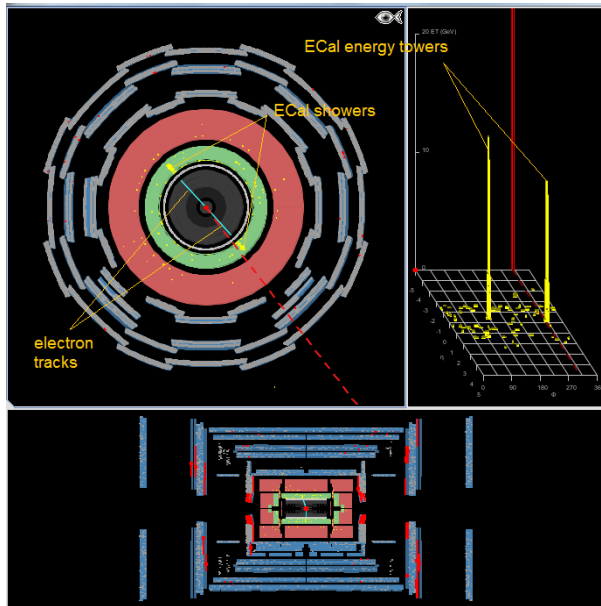




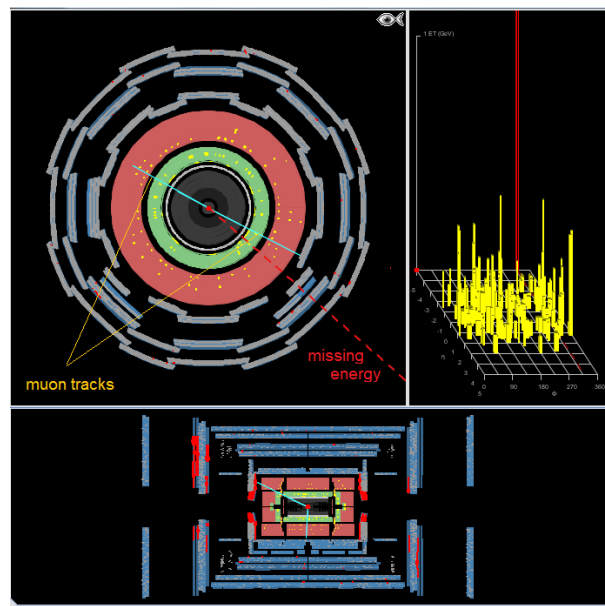
ATLAS Z-path Masterclass "Cheat Sheet"



2-lepton events



Dielectron or e^+e^- event.



Dimuon or $\mu^+\mu^-$ event.

4-lepton events

| Track | ± | P [GeV] | Pt [GeV] | ϕ | θ |
|------------|---|---------|----------|--------|----------|
| Tracks 3 | - | 58.90 | 45.18 | -0.168 | 0.874 |
| Tracks 21 | + | 36.49 | 36.41 | 2.869 | 1.638 |
| Tracks 407 | + | 85.50 | 43.24 | -2.267 | 0.530 |
| Tracks 413 | - | 20.12 | 15.77 | 0.141 | 2.241 |



ATLAS Z-path Masterclass "Cheat Sheet"



2-photon events

The screenshot displays the HYPATIA software interface. The top-left window shows the ATLAS detector geometry with 'Ecal energy towers' and 'Ecal showers' highlighted. The top-right window shows the 'Track Momenta' table:

| Track | P [GeV] | Pt [GeV] | ϕ | θ |
|----------|---------|----------|--------|----------|
| Object 0 | 58.63 | 54.71 | -1.921 | 1.939 |
| Object 1 | 53.76 | 49.19 | 1.333 | 1.156 |

The bottom-right window shows the 'Control Window' with various parameters set for the event analysis.

| Category | Name | Value |
|----------|---|------------|
| InDet | | |
| Calo | <input checked="" type="checkbox"/> Pt | > 15.0 GeV |
| MuonDet | <input checked="" type="checkbox"/> d0 | < 2.5 mm |
| Objects | <input checked="" type="checkbox"/> z0 | < 20.0 cm |
| ATLAS | <input type="checkbox"/> d0 Loose | < 2.0 cm |
| | <input type="checkbox"/> z0-zVtx | < 2.5 mm |

Standard model chart

