



Analysis optimisation for more than 10 TeV gamma-ray astronomy with IACTs



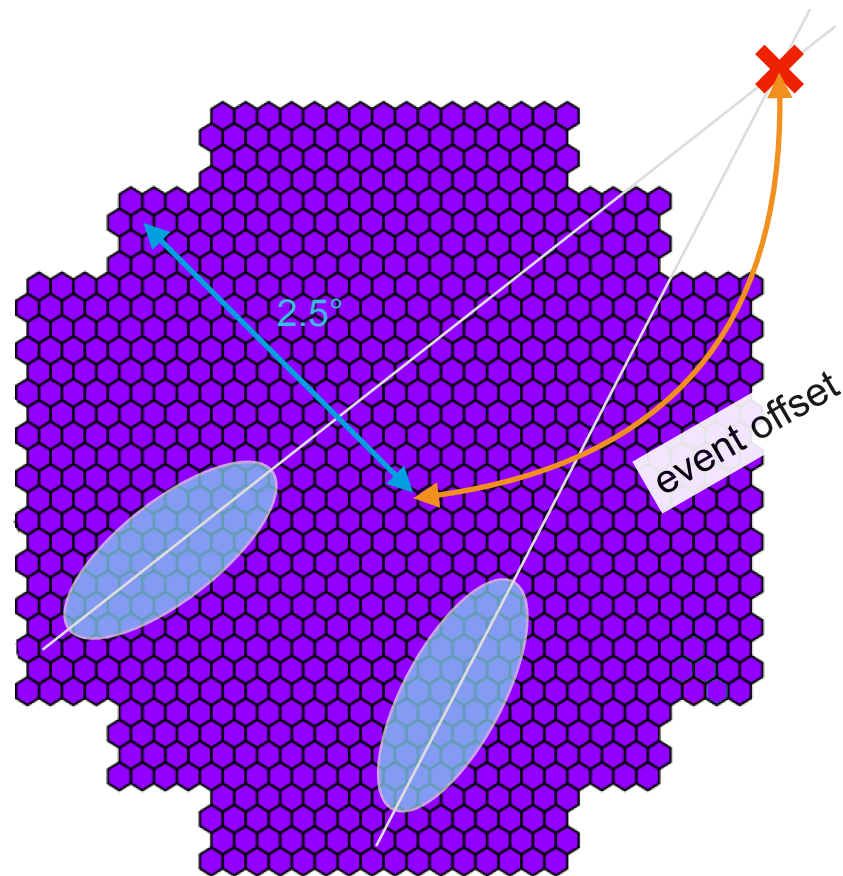
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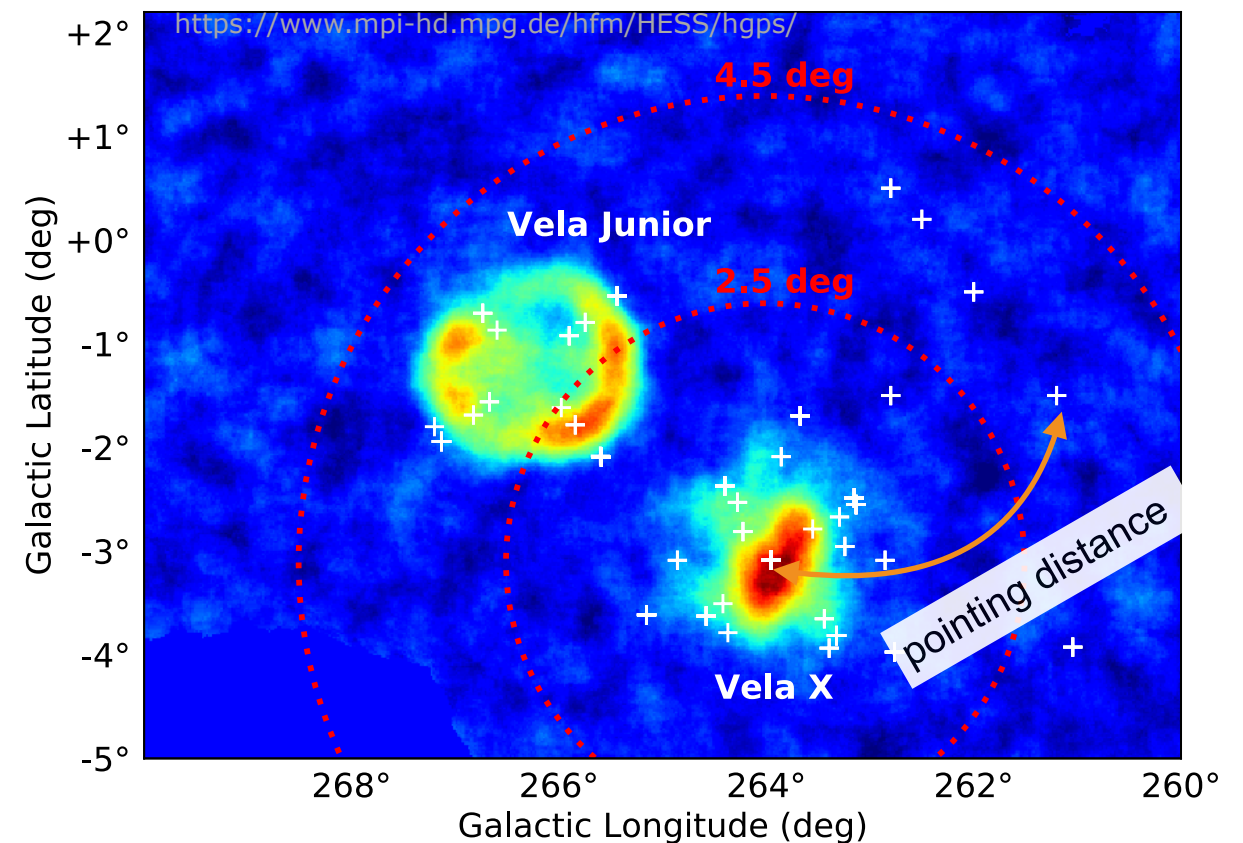
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Large-offset-angle events



standard analysis:
max. event offset
 $\approx$ max. pointing distance
 $\approx 2.5^\circ$



Allowance for
large-offset events ($> 2.5^\circ$)
in the analysis

- **larger effective field of view** (up to $\sim 8-9$ deg)
- **increase in gamma-ray statistics**
at highest energies

■ Challenges at large offsets:

- reconstruction accuracy degradation
- increased background rate

improved
direction reconstruction
& g/h separation

**high-energy
optimised analysis**

Resulting performance & summary

- standard offset angles (2.5 deg):
 - 5-10% improvement in angular resolution
 - 10-20% in sensitivity
- sensitivity to events at large offset angles (was not accessible before!)

