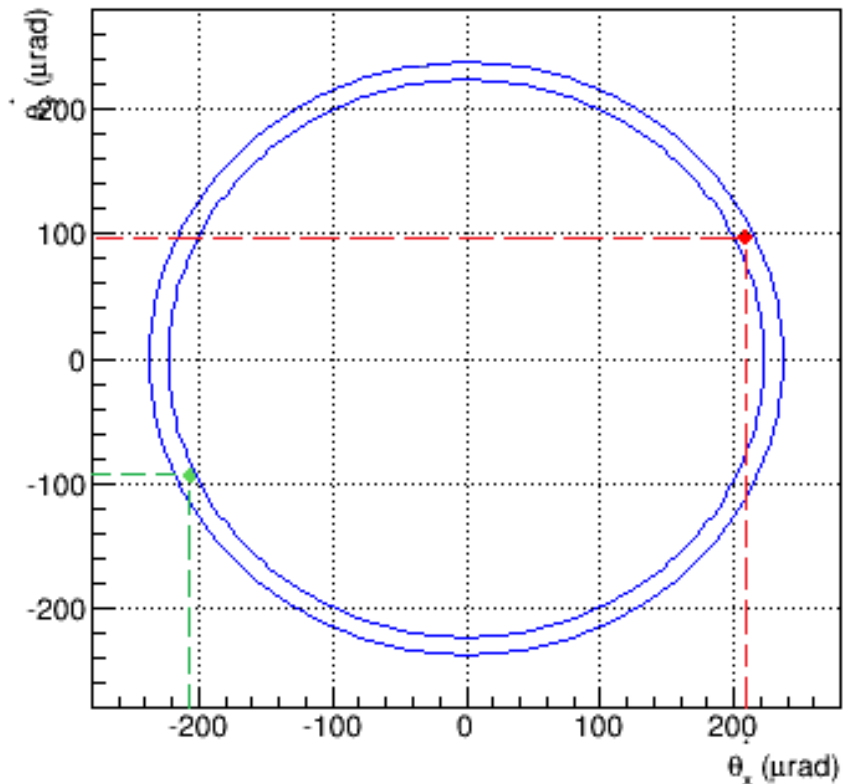


Recoiling protons

TOTEM proton-scattering events for
student analysis

Angular Topology

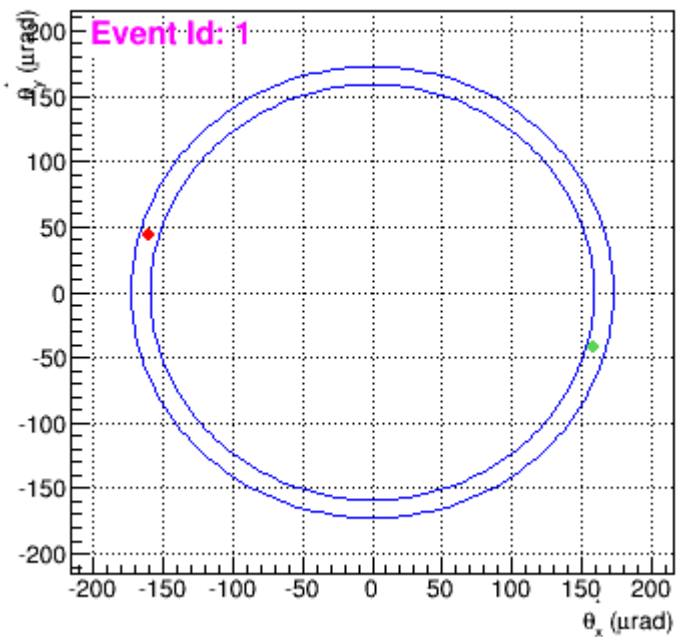


- Find the **red** and **green** dots. Each represents a proton strike on the detector, albeit from different sides of TOTEM.
- Drop a vertical line to read the value of θ_x for each dot as shown.
- Drop a vertical line to read the value of θ_y for each dot as shown.
- Record *all four values* in your tally sheet.

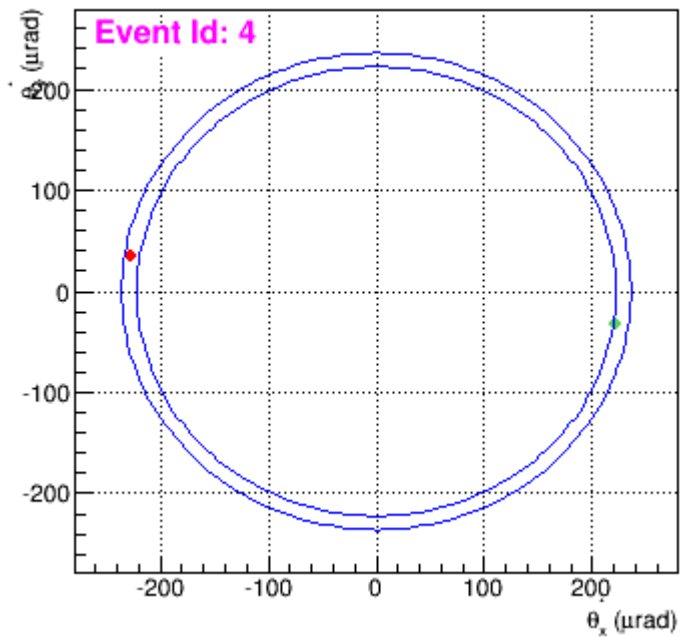
$$\theta_x = 209 \mu\text{rad} \quad \theta_x = -208 \mu\text{rad}$$

$$\theta_y = 99 \mu\text{rad} \quad \theta_y = -92 \mu\text{rad}$$

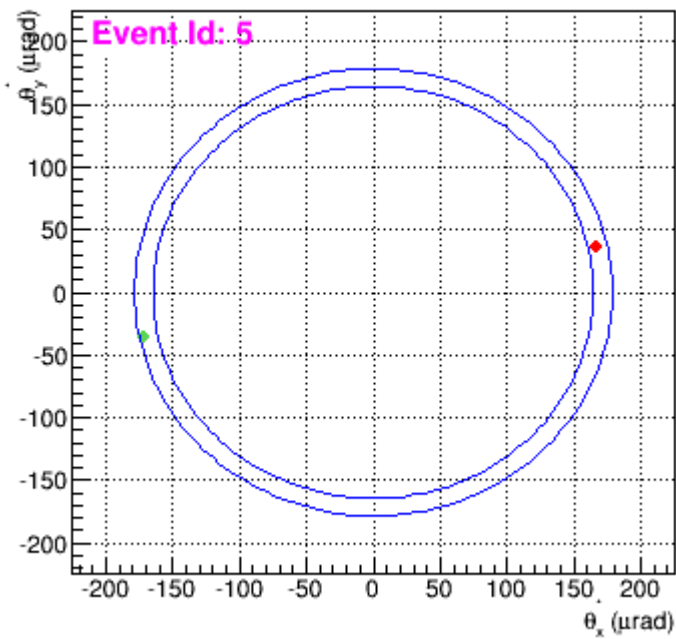
Angular Topology



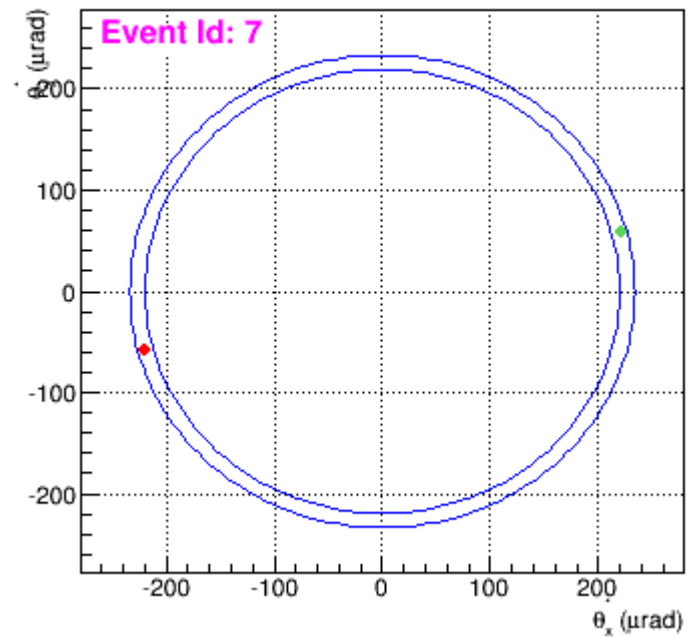
Angular Topology



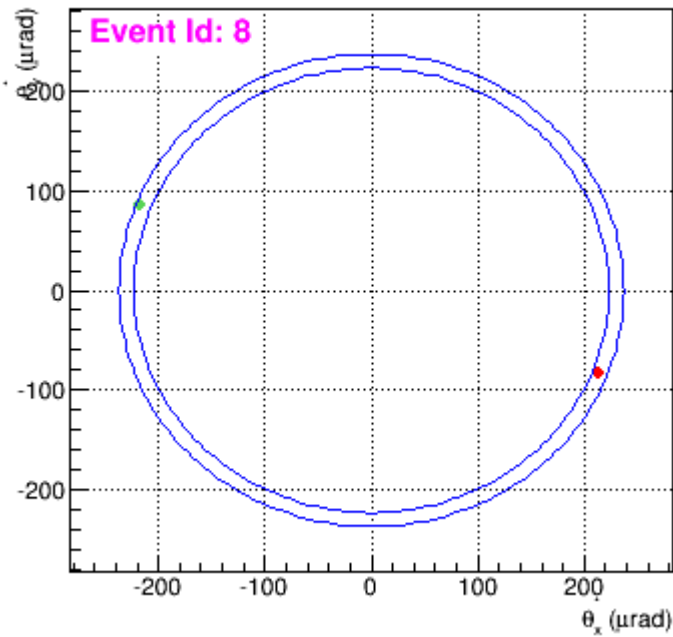
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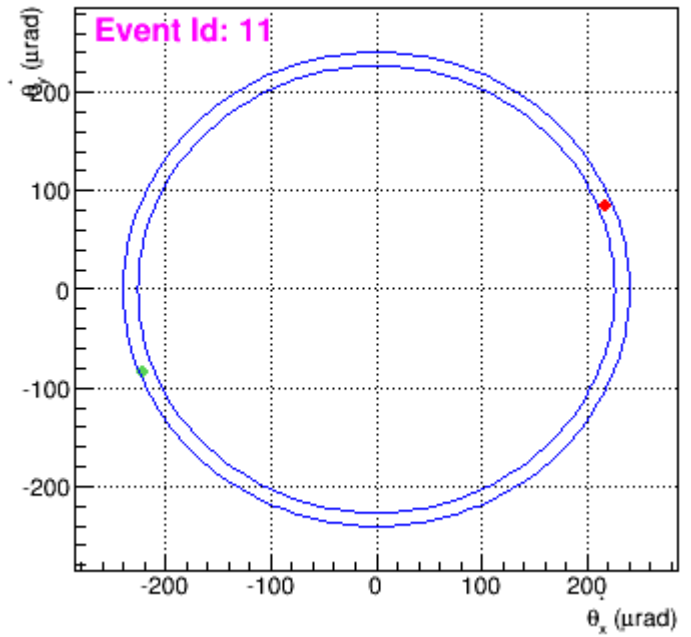
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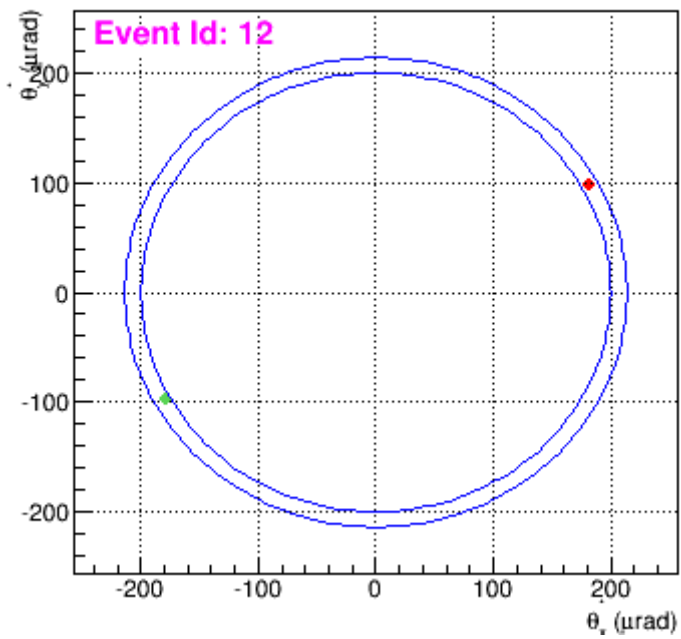
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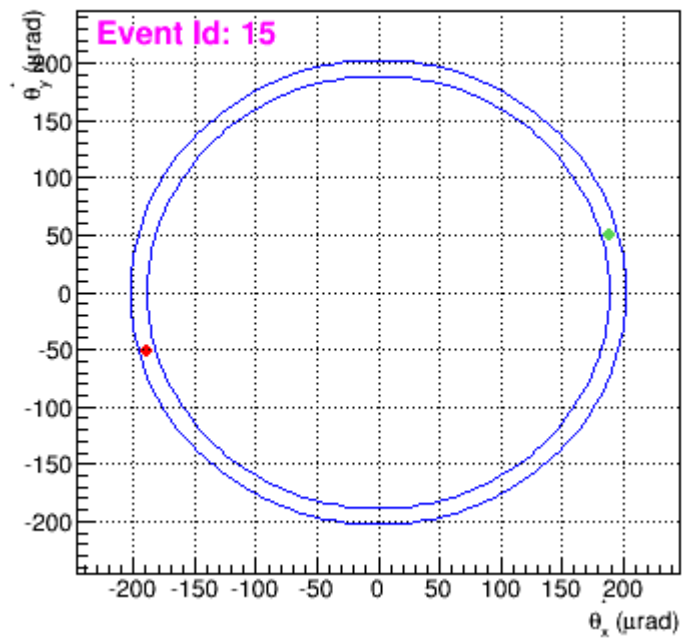
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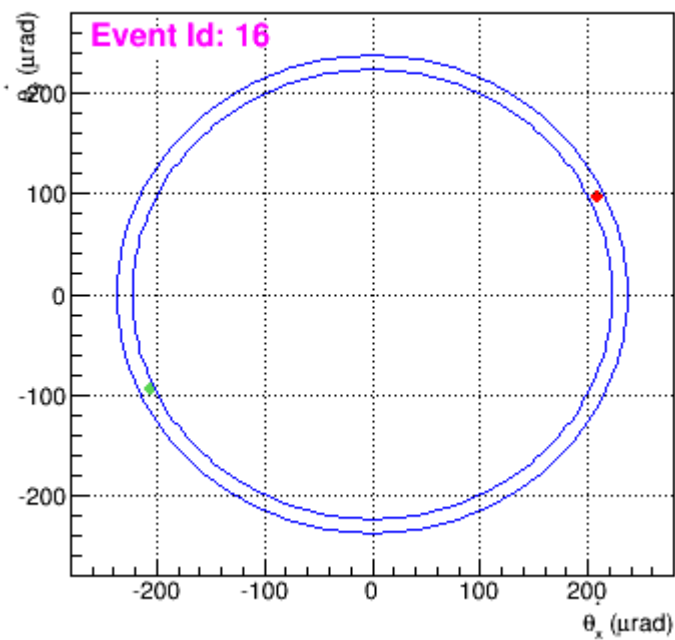
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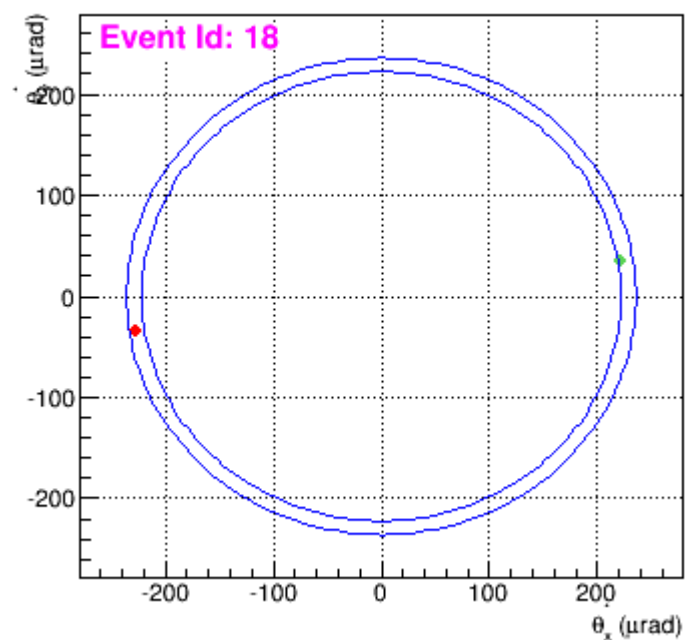
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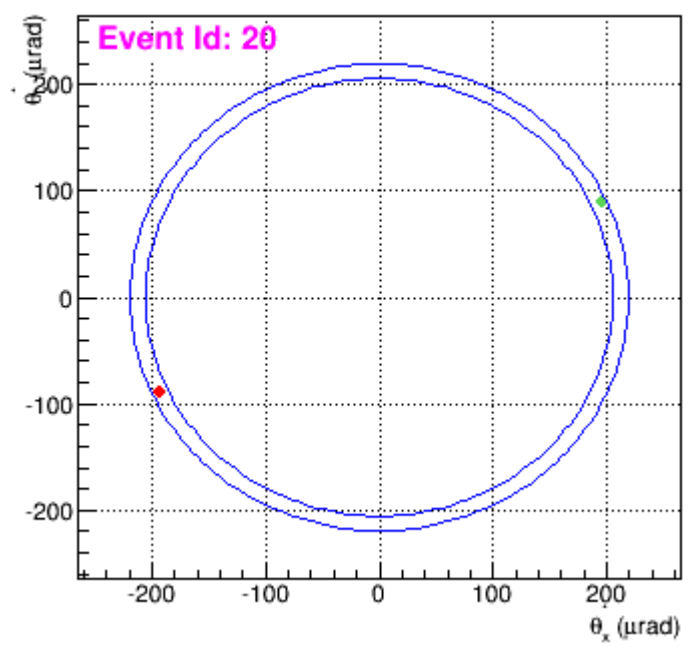
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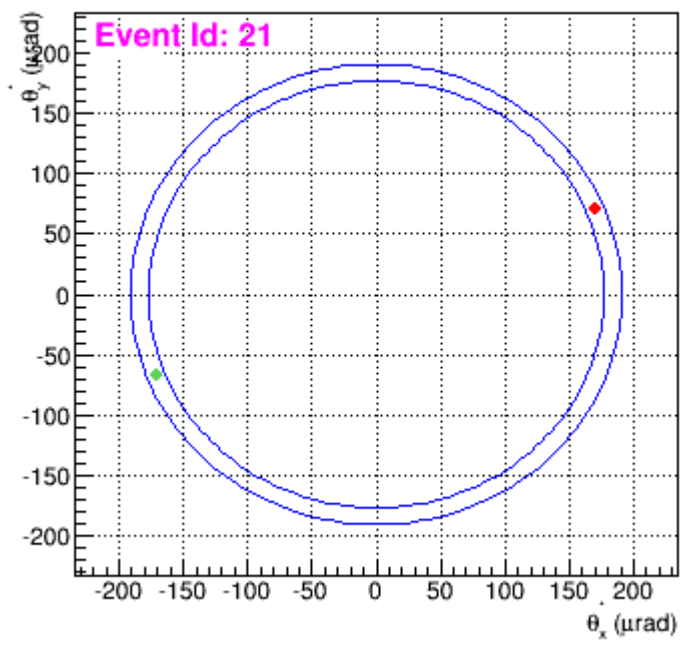
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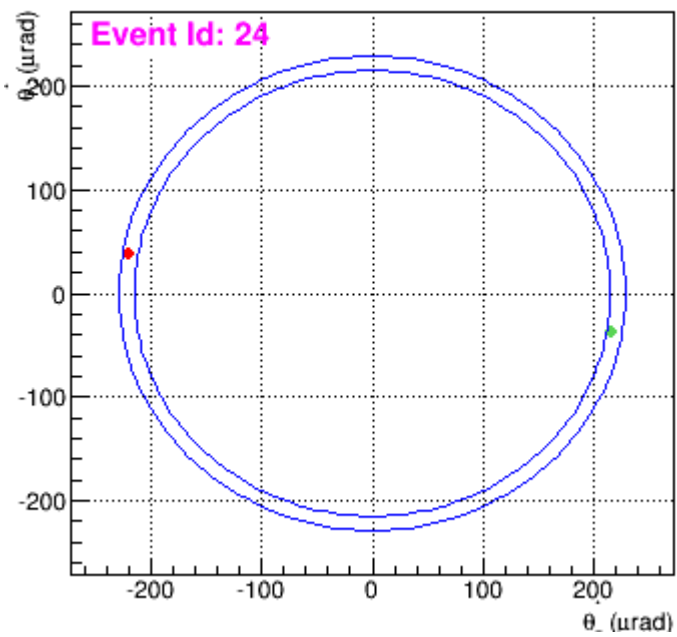
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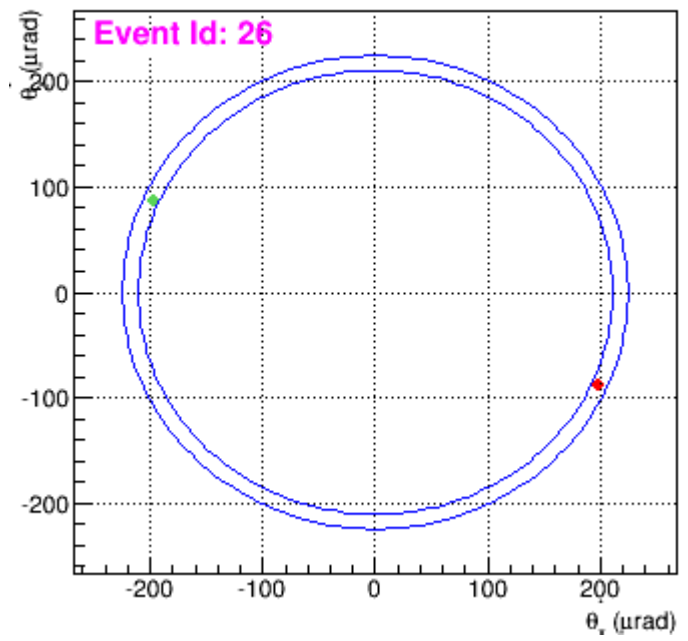
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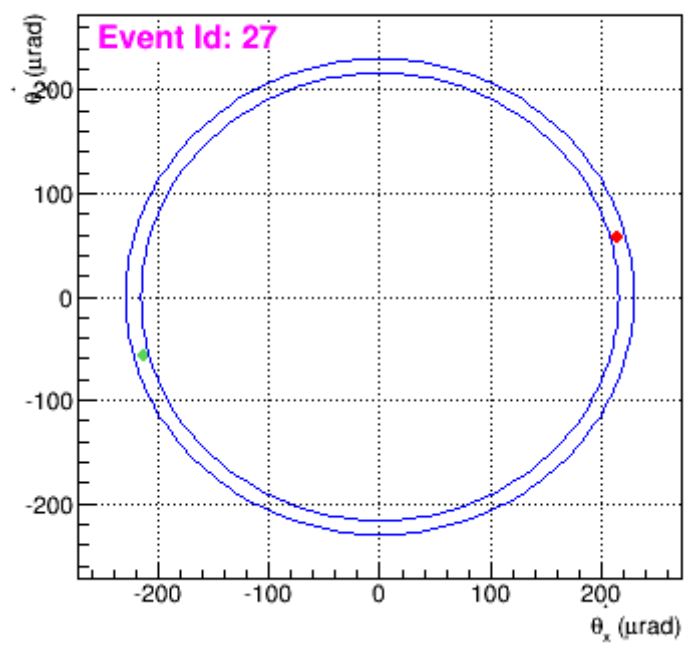
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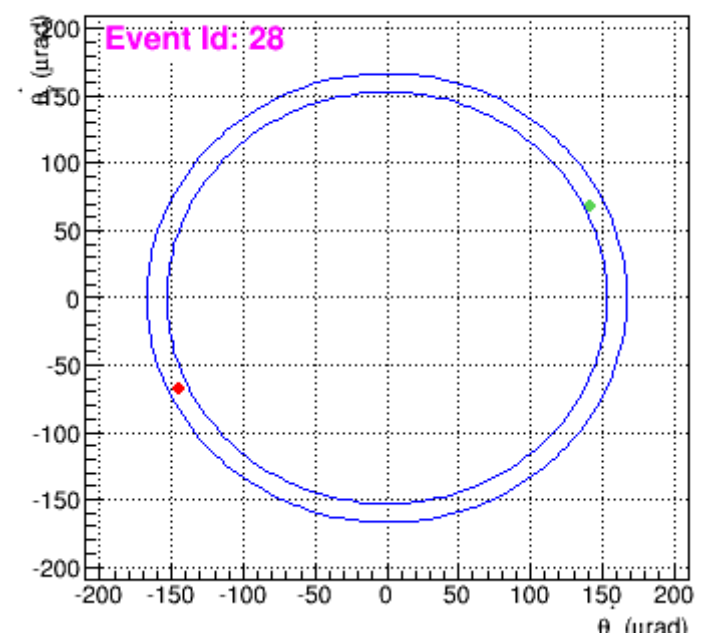
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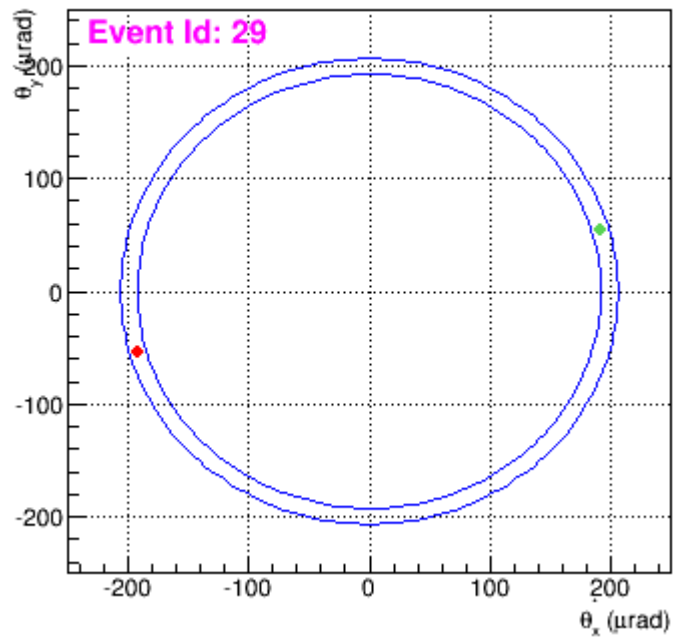
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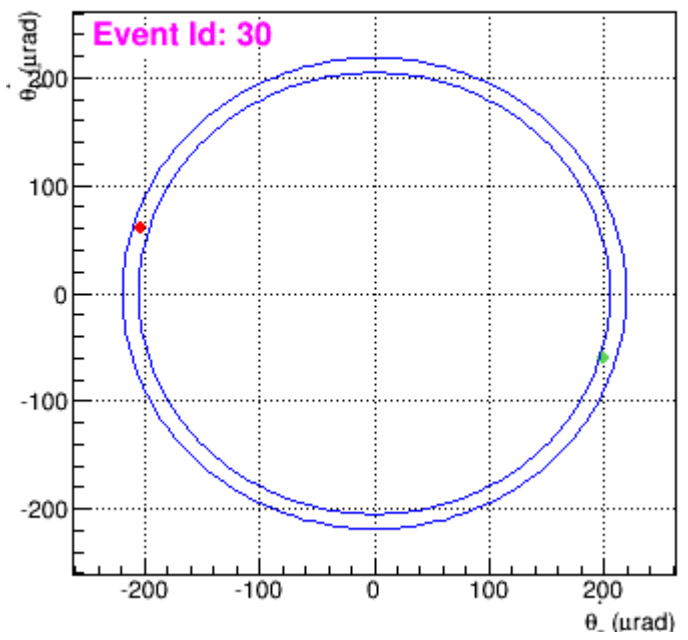
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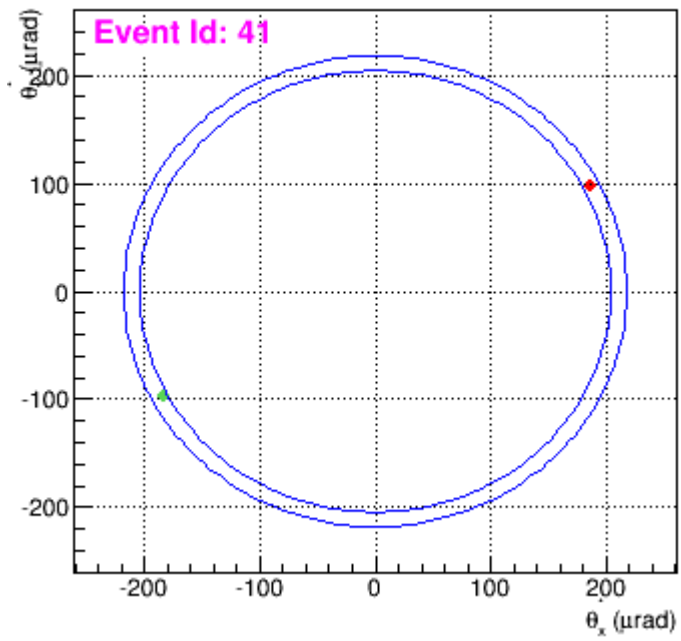
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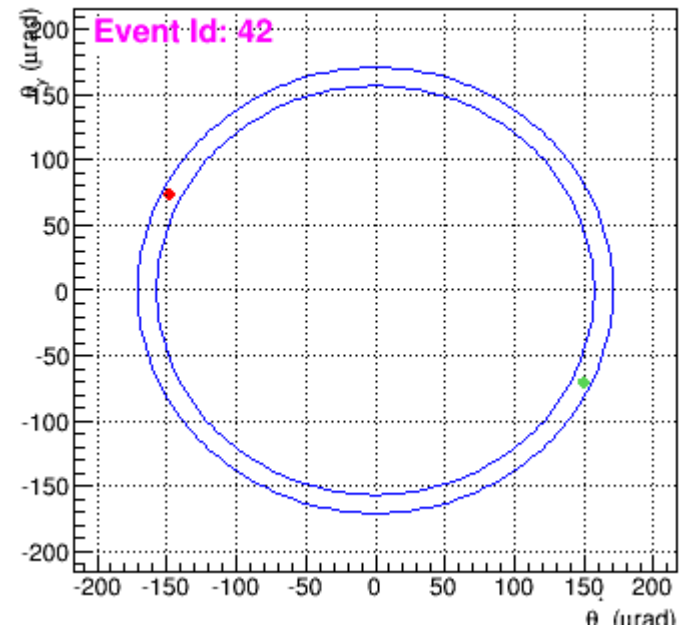
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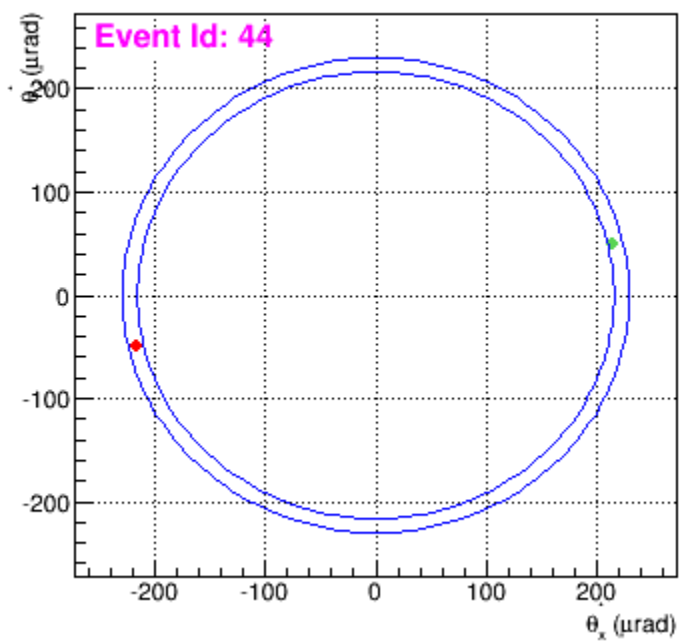
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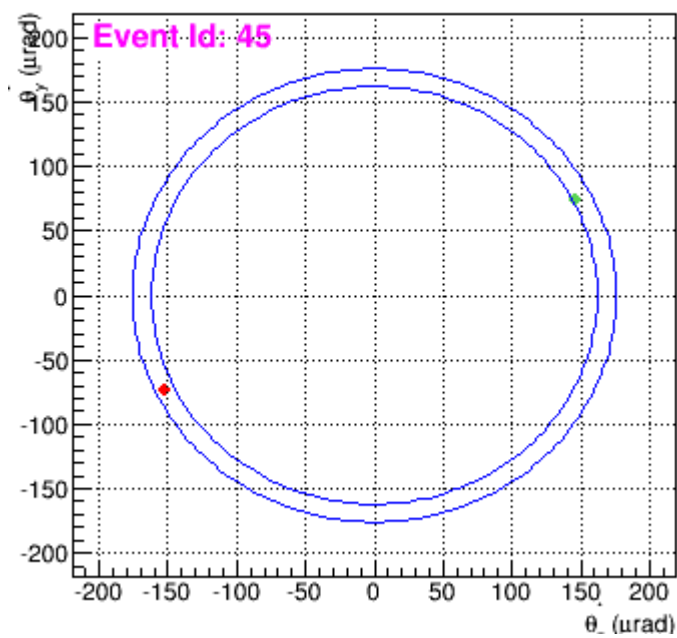
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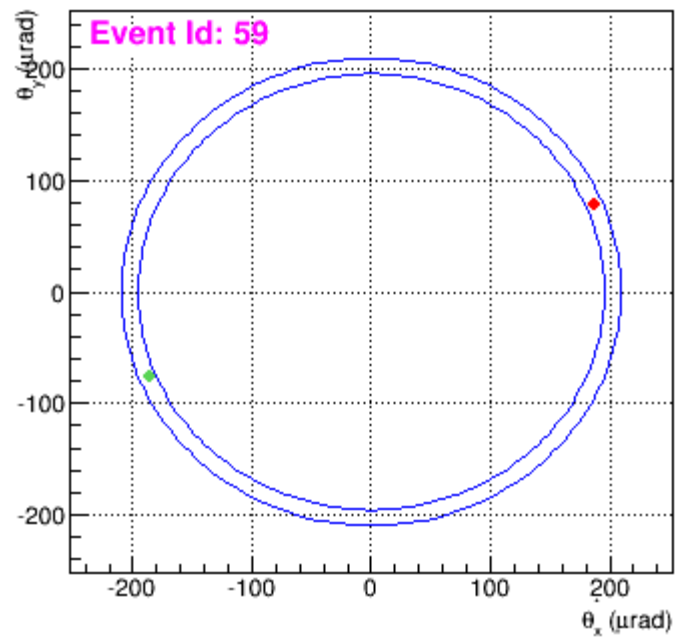
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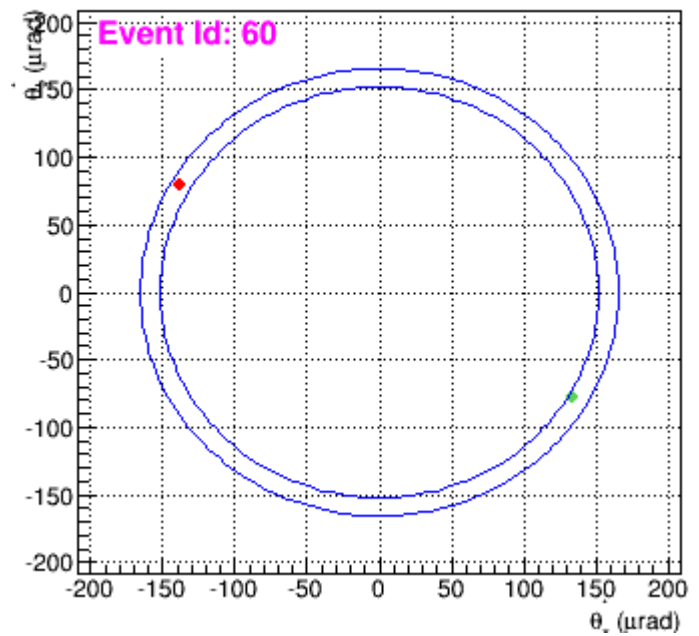
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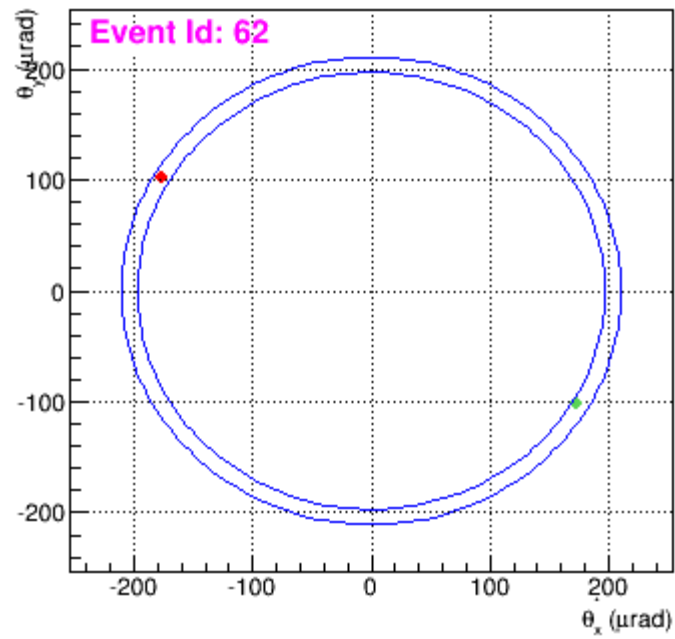
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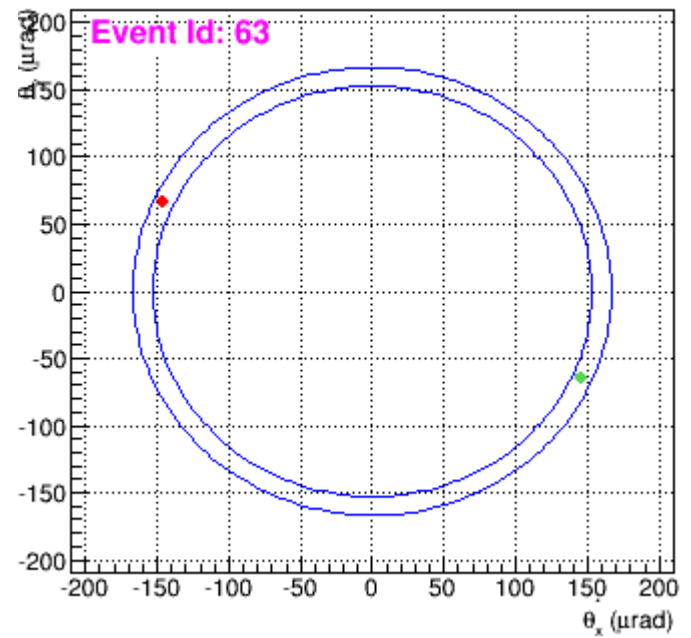
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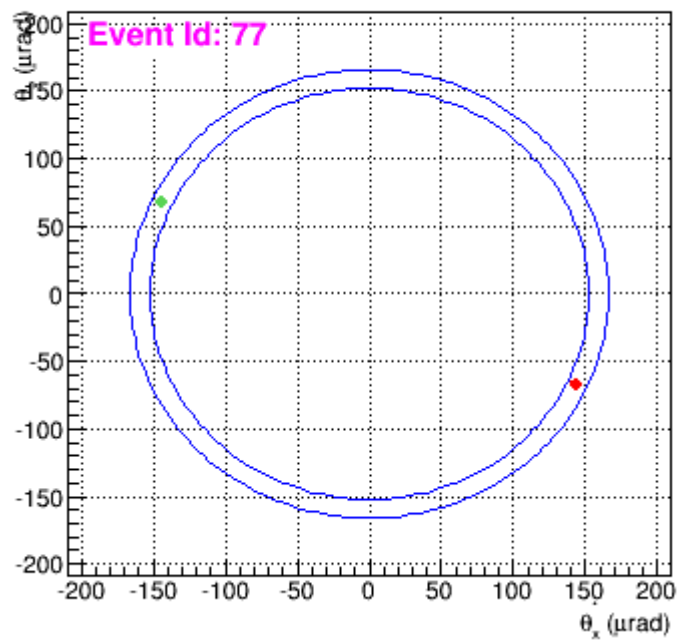
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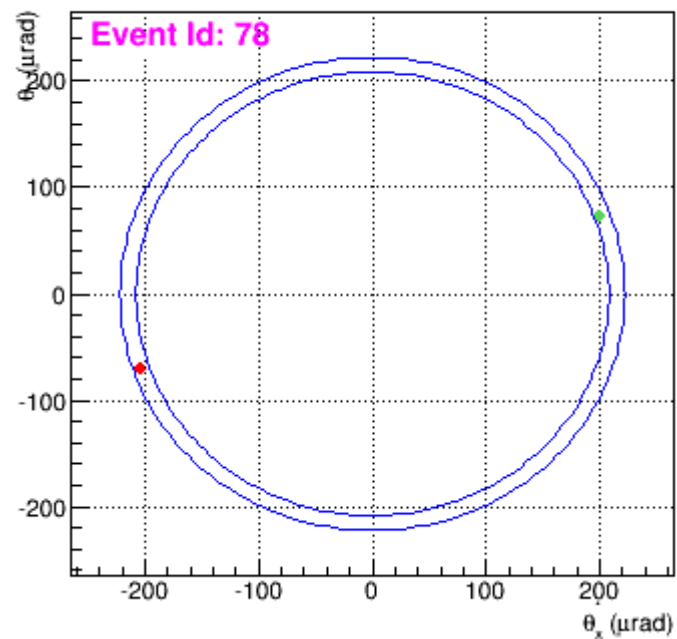
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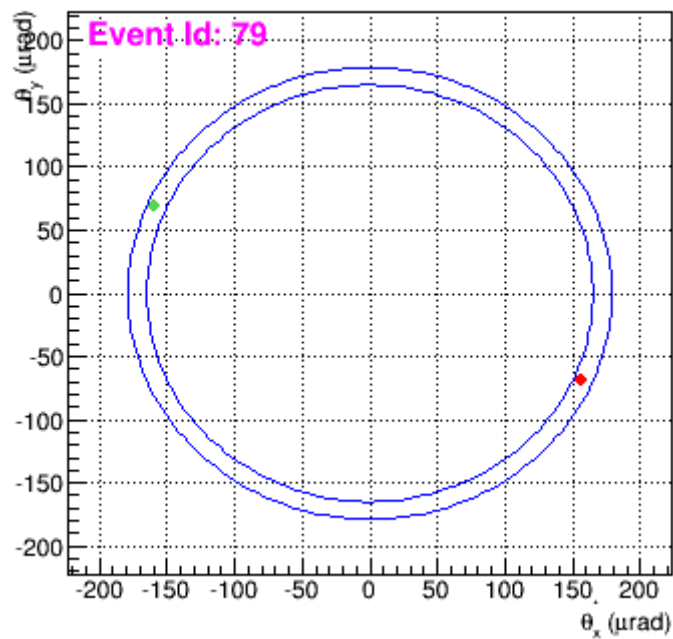
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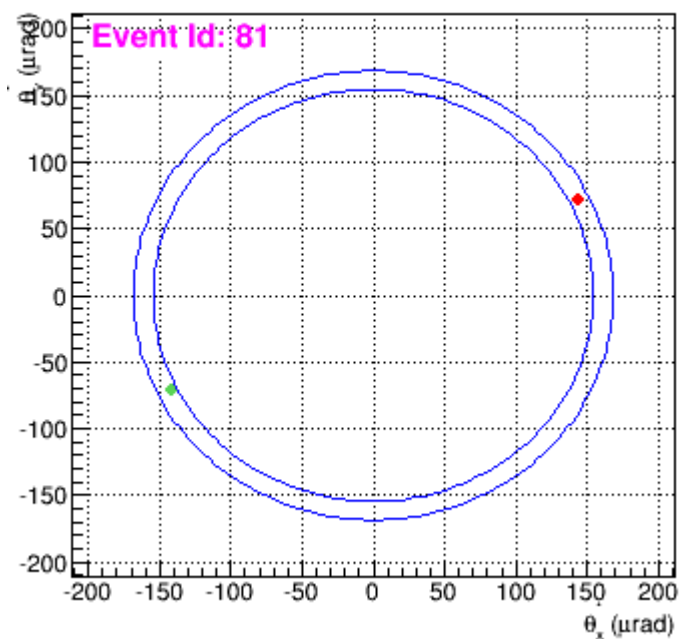
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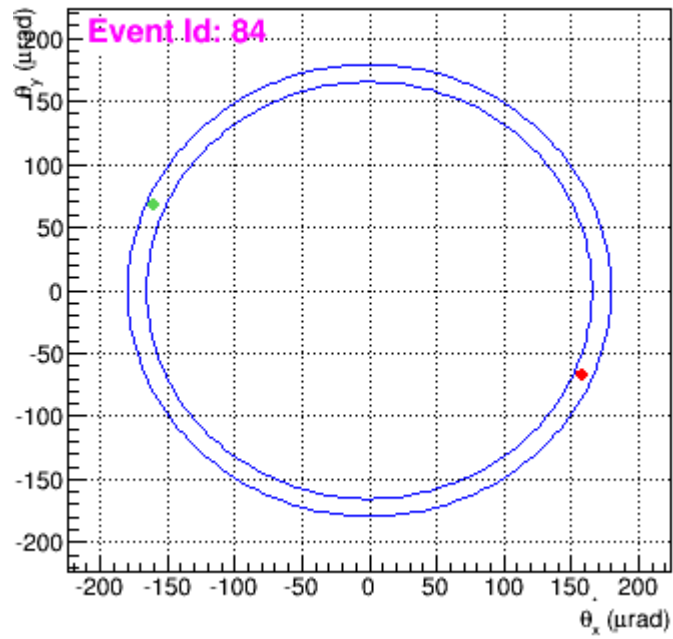
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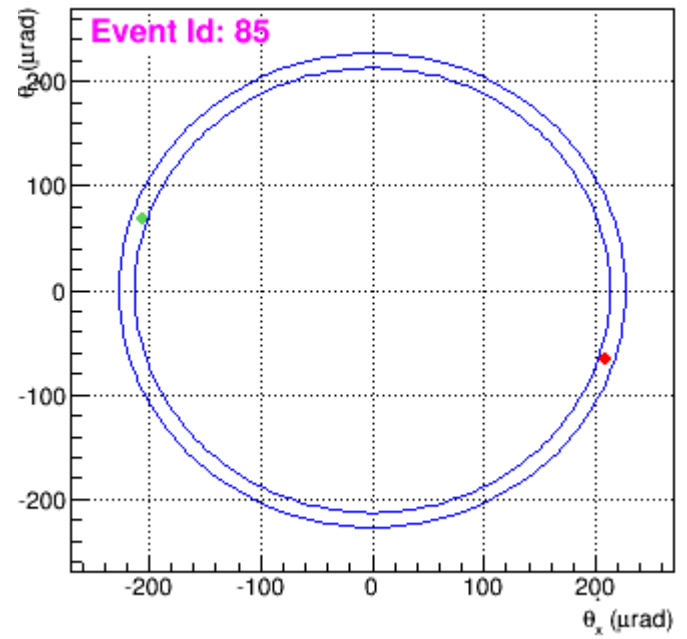
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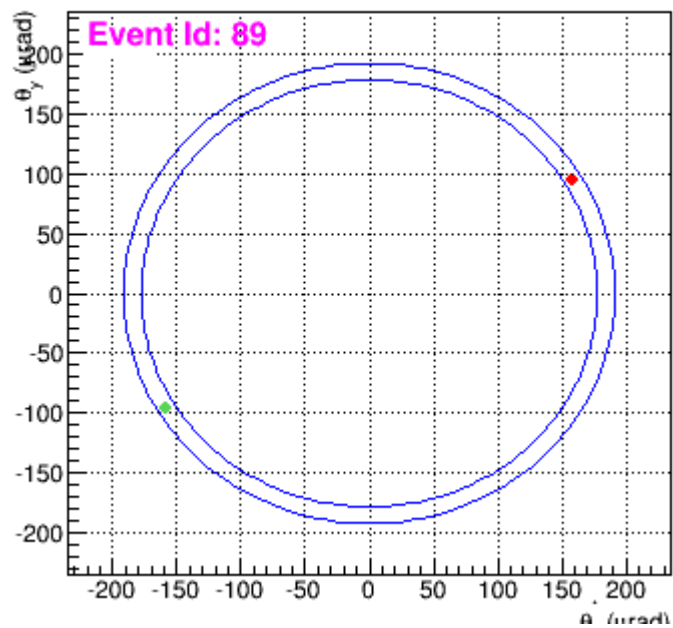
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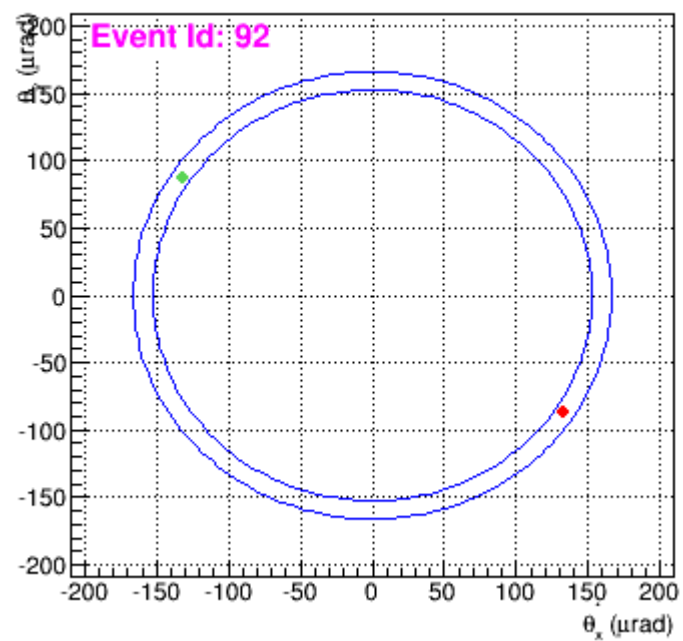
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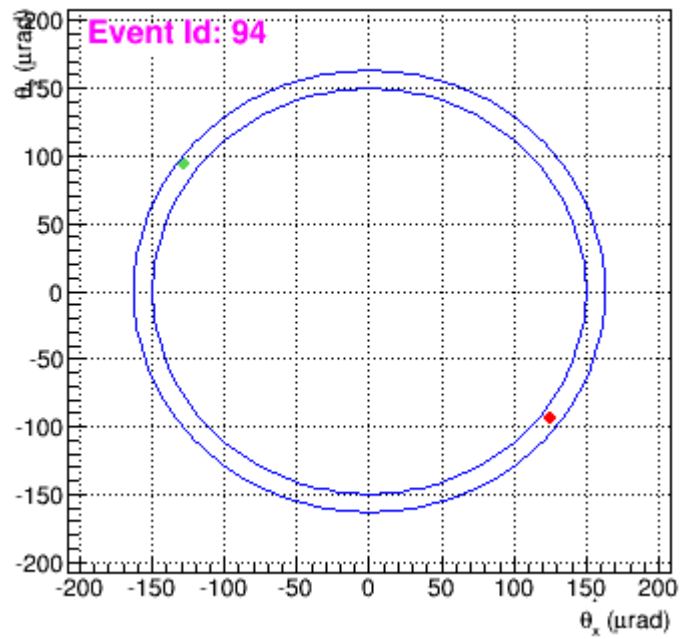
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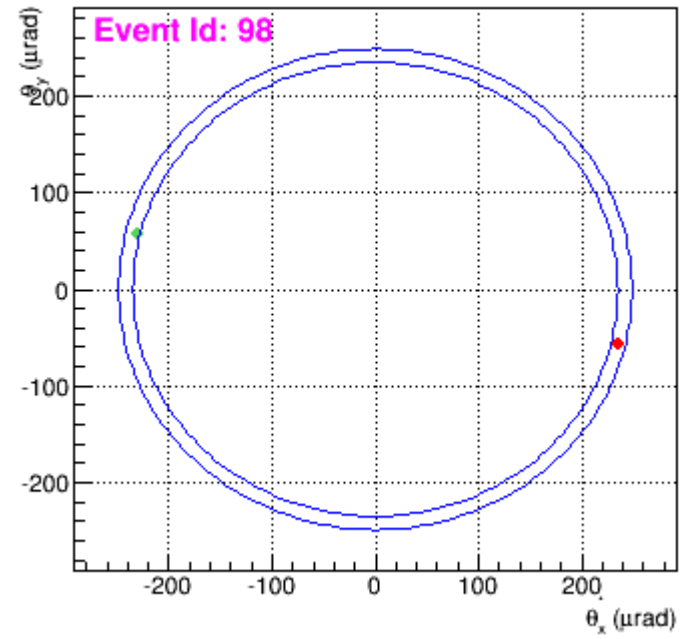
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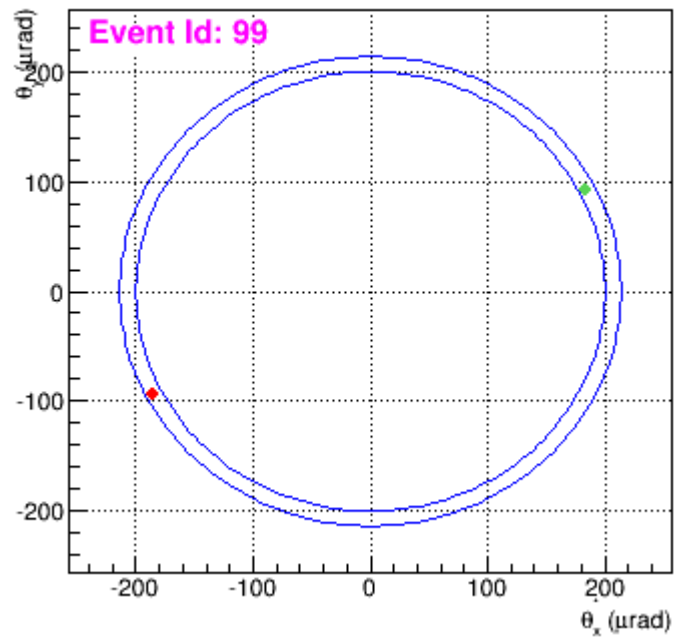
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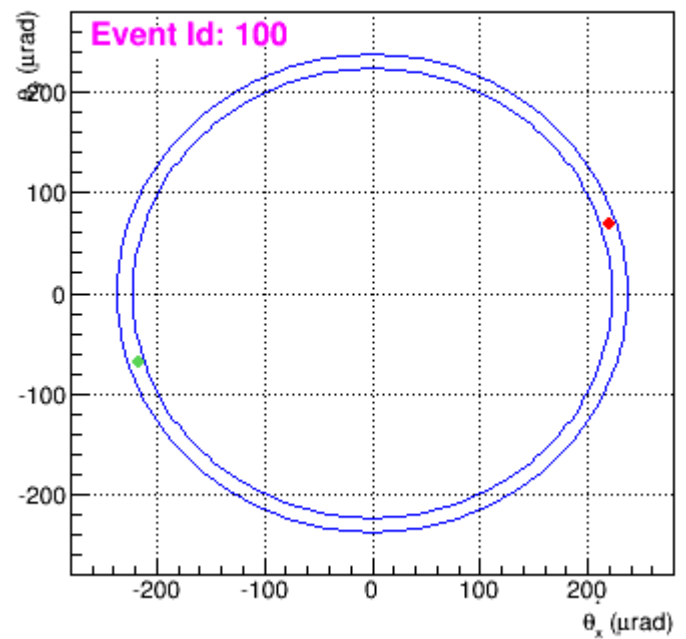
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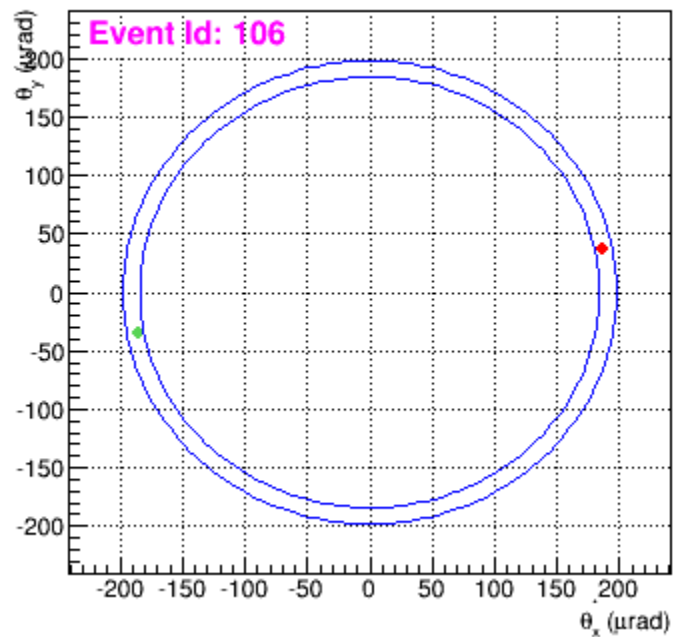
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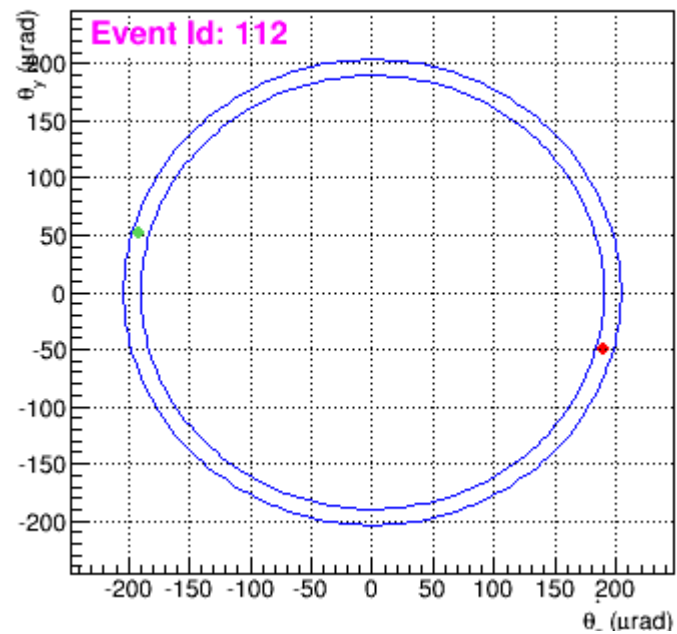
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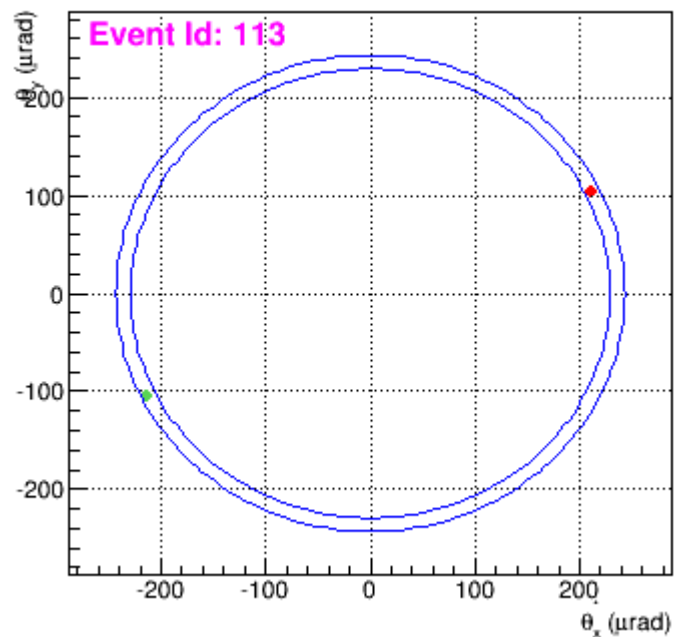
Angular Topology



Angular Topology



Angular Topology



Angular Topology

