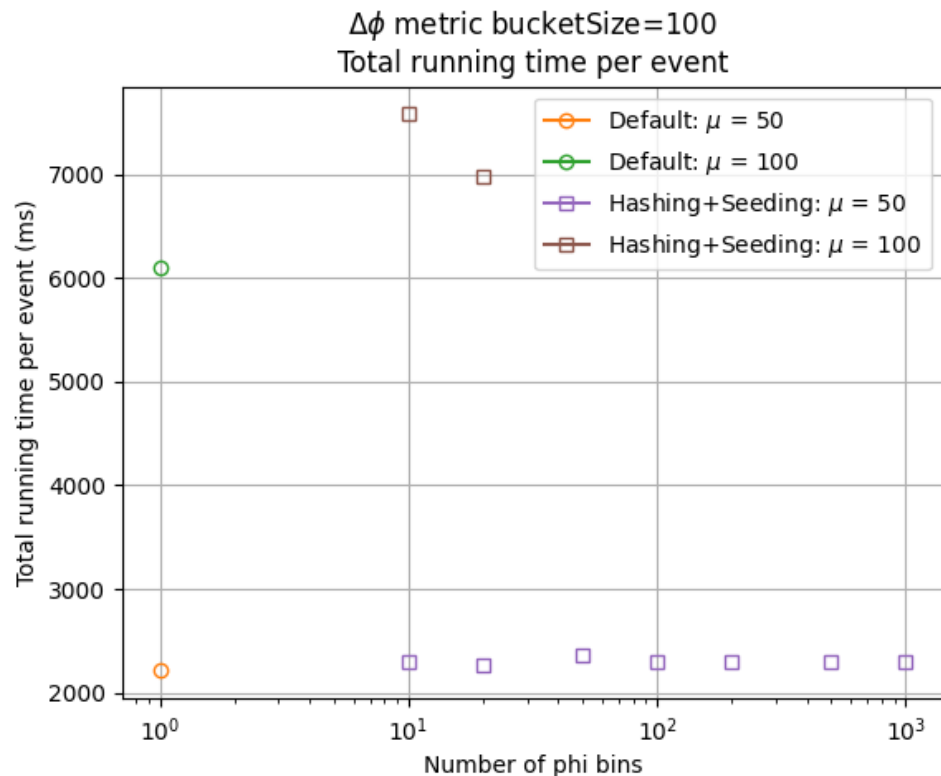# Tracking with Hashing
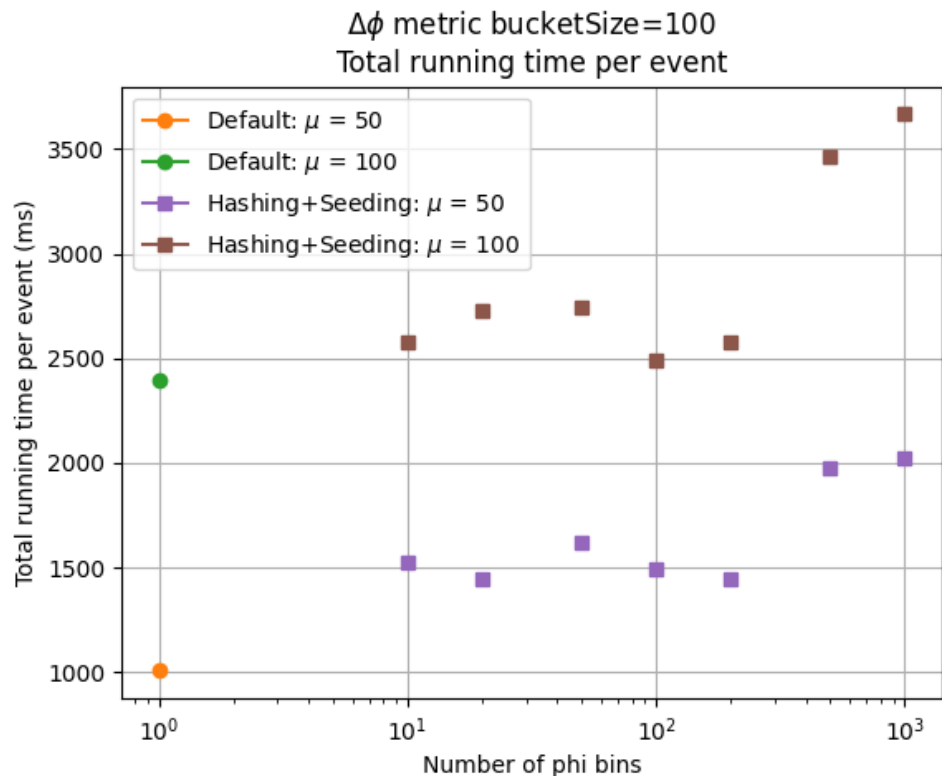
Current state

Jeremy Couthures

Phi bins (no cut): Timing
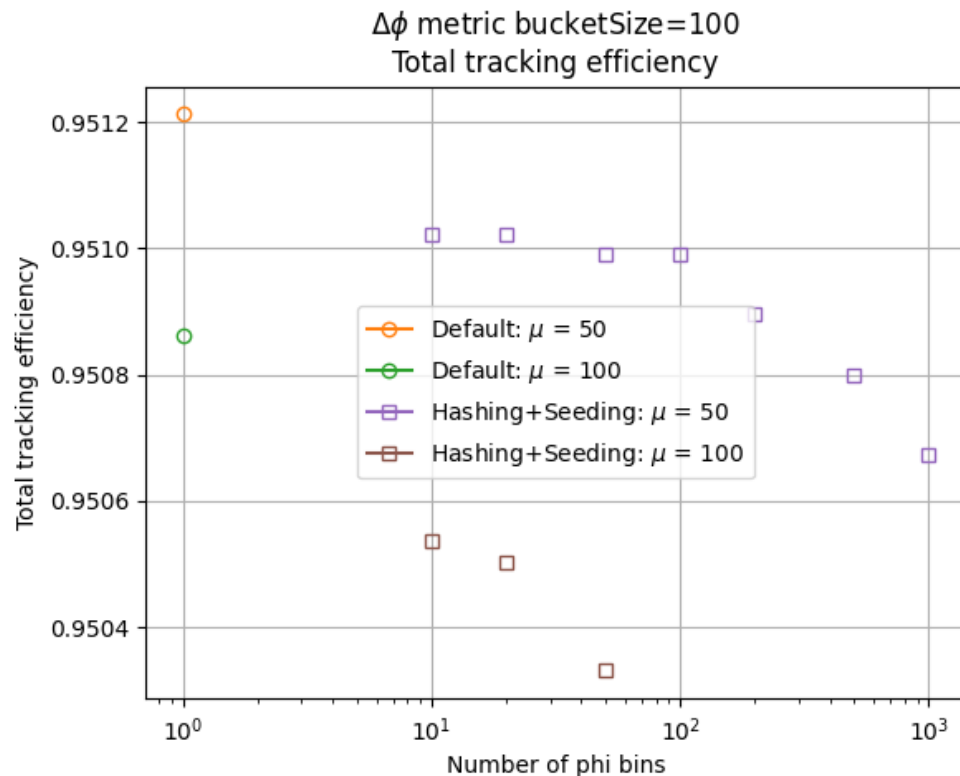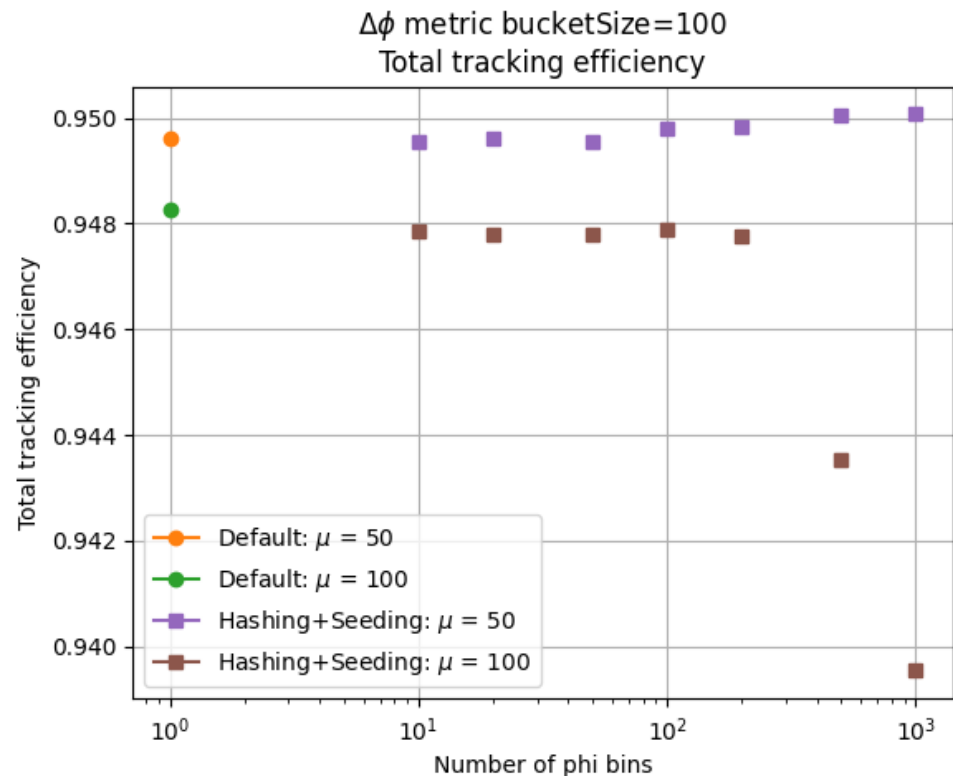
Δφ metric bucketSize=100
Total running time per event

Legend (left plot):
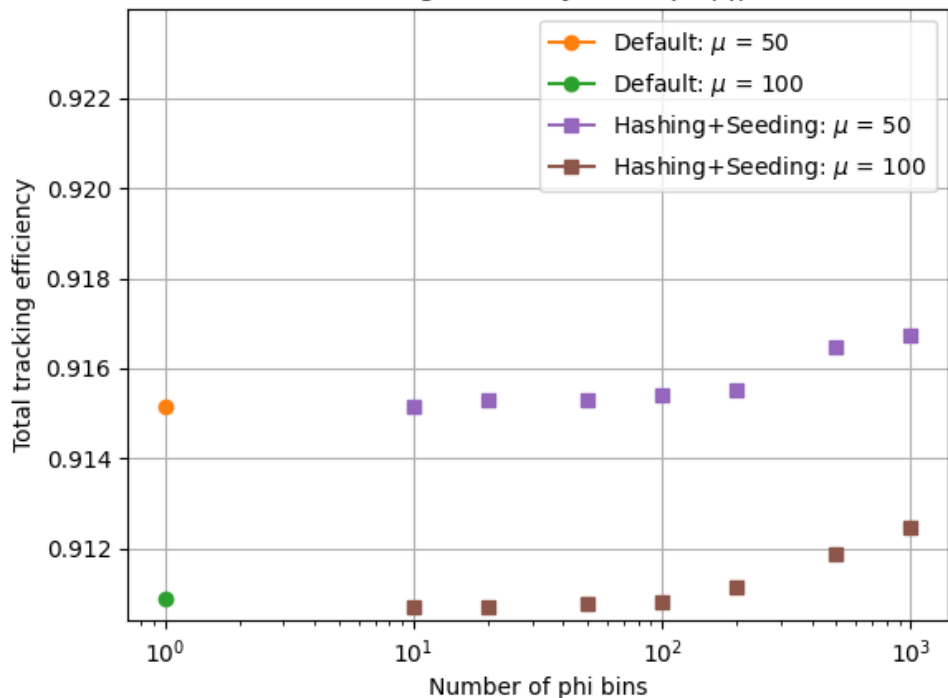- Default: $\mu = 50$
- Default: $\mu = 100$
- Hashing+Seeding: $\mu = 50$
- Hashing+Seeding: $\mu = 100$

Δφ metric bucketSize=100
Total running time per event

Legend (right plot):
- Default: $\mu = 50$
- Default: $\mu = 100$
- Hashing+Seeding: $\mu = 50$
- Hashing+Seeding: $\mu = 100$

Phi bins (no cut): Tracking efficiency

Phi bins (no cut): Tracking efficiency

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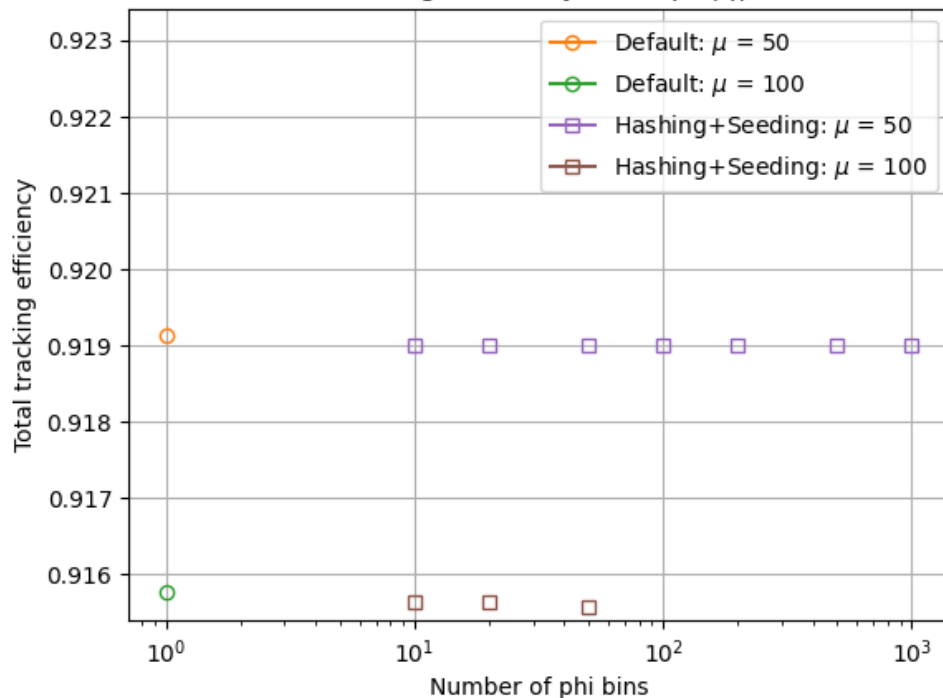
Phi bins: overlap in buckets

Overlap in buckets ⟨μ⟩ = 50 Δφ metric
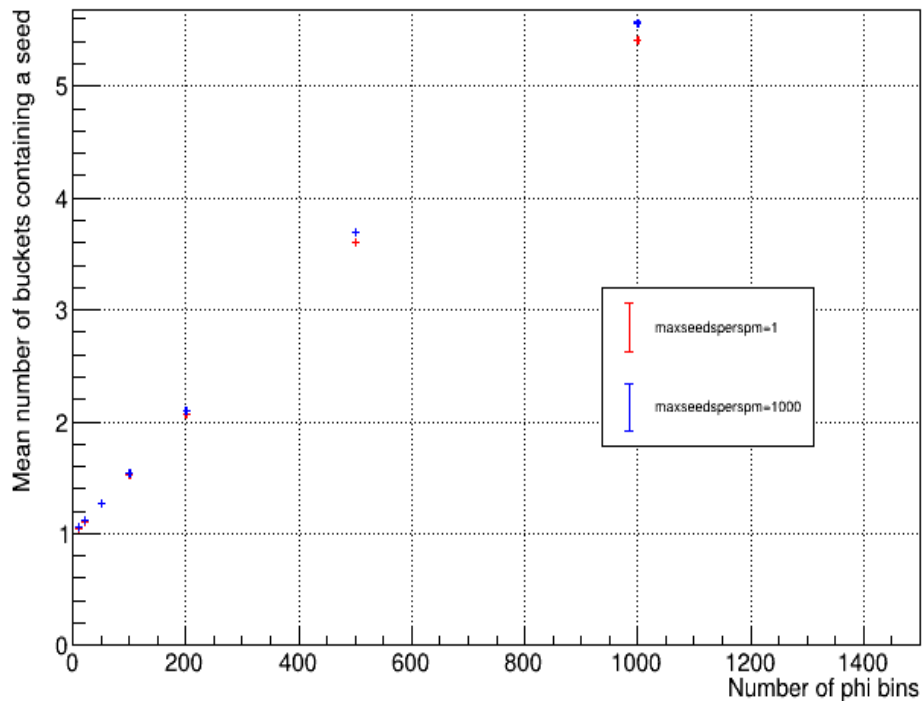
Overlap in buckets ⟨μ⟩ = 50 Δφ metric
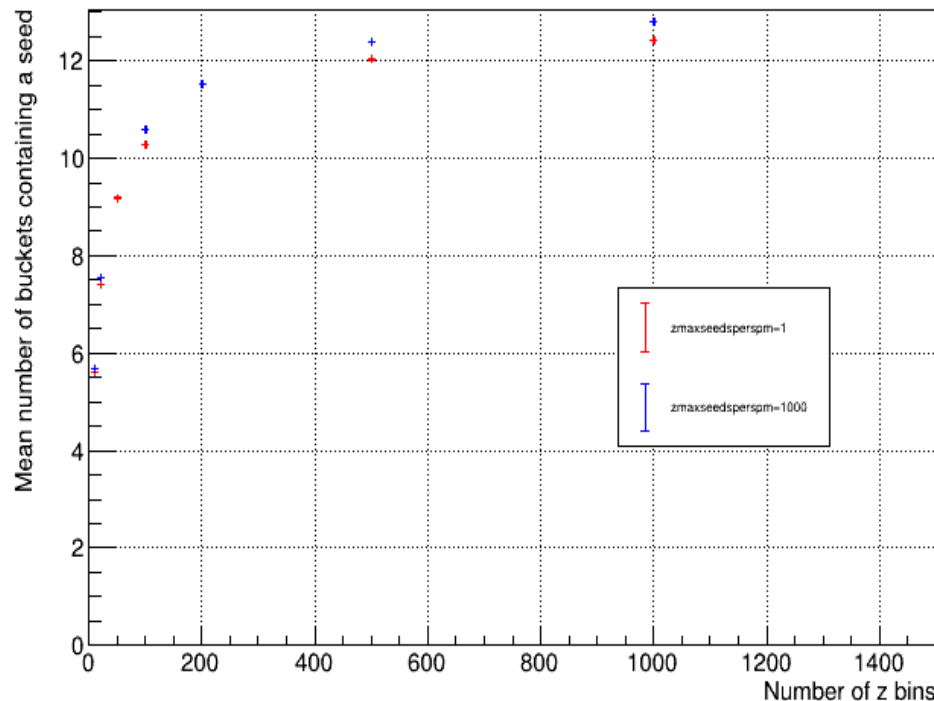
Superbucket binning in Z position
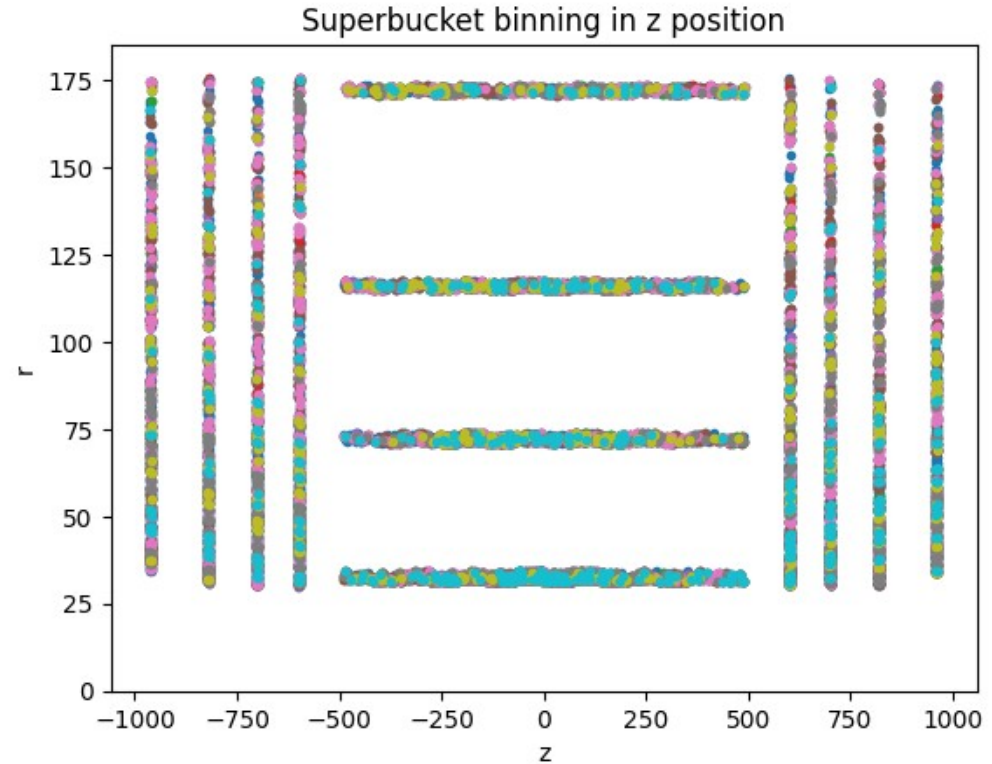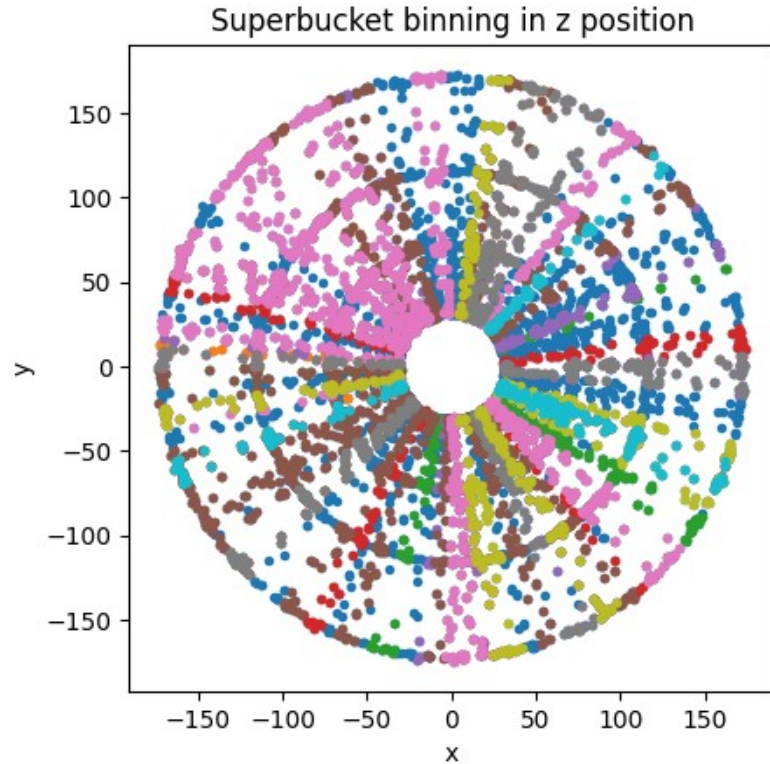
Superbucket binning in Phi position