Group Meeting June 2020

Brían Ó Fearraigh

Case Study

- What happens if the JShowerFit energy reconstruction is applied to the muon track reconstruction?
- JORCAReconstruction.sh -> standard chain used
- Consists of JMuonPrefit -> JMuonSimplex -> JMuonStart -> JMuonGandalf -> JMuonStart -> JMuonEnergy

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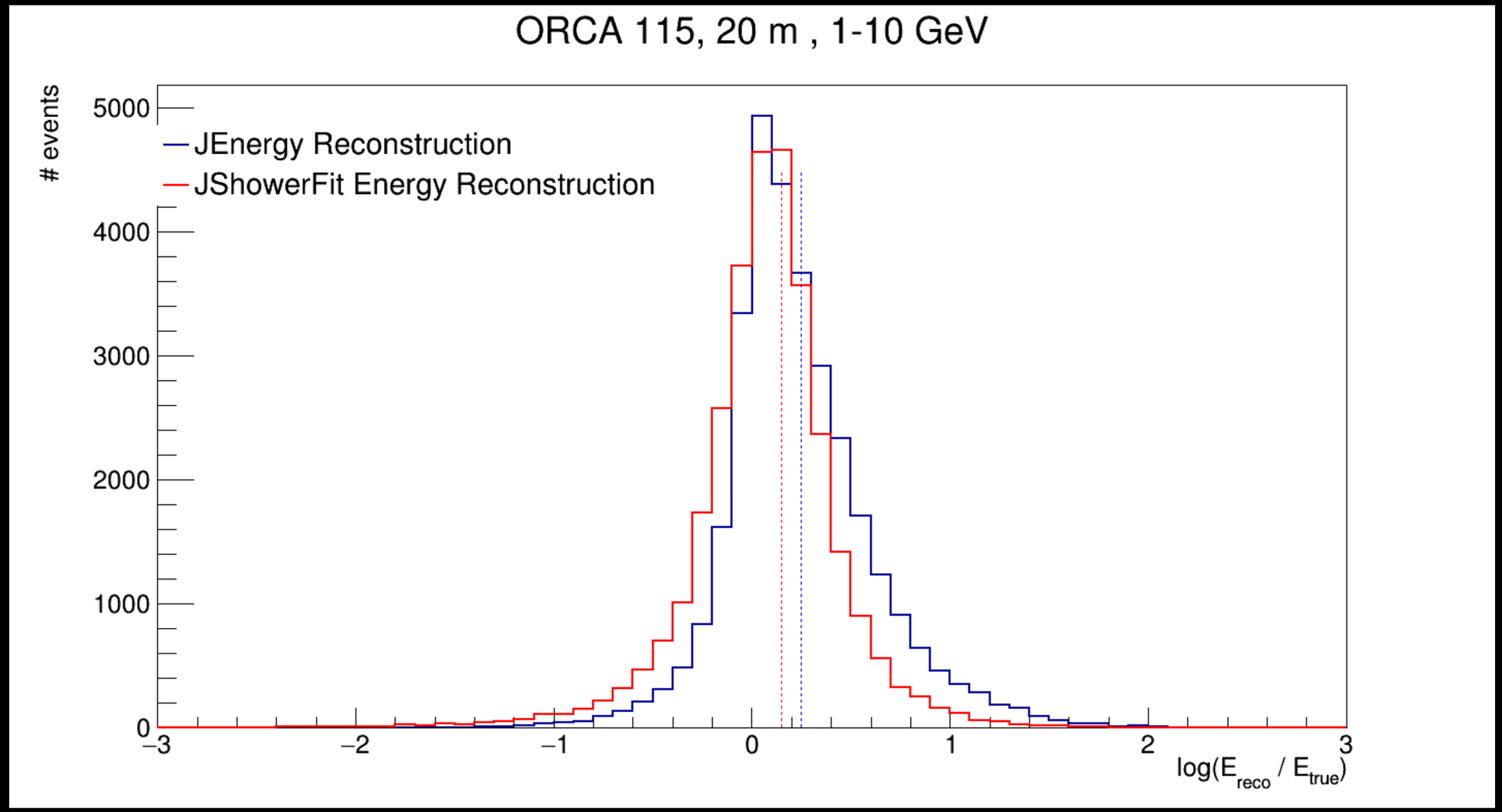
- Replace the JMuonEnergy stage with the energy estimator of the shower reconstruction chain: namely JShowerEnergyPrefit -> JShowerFit

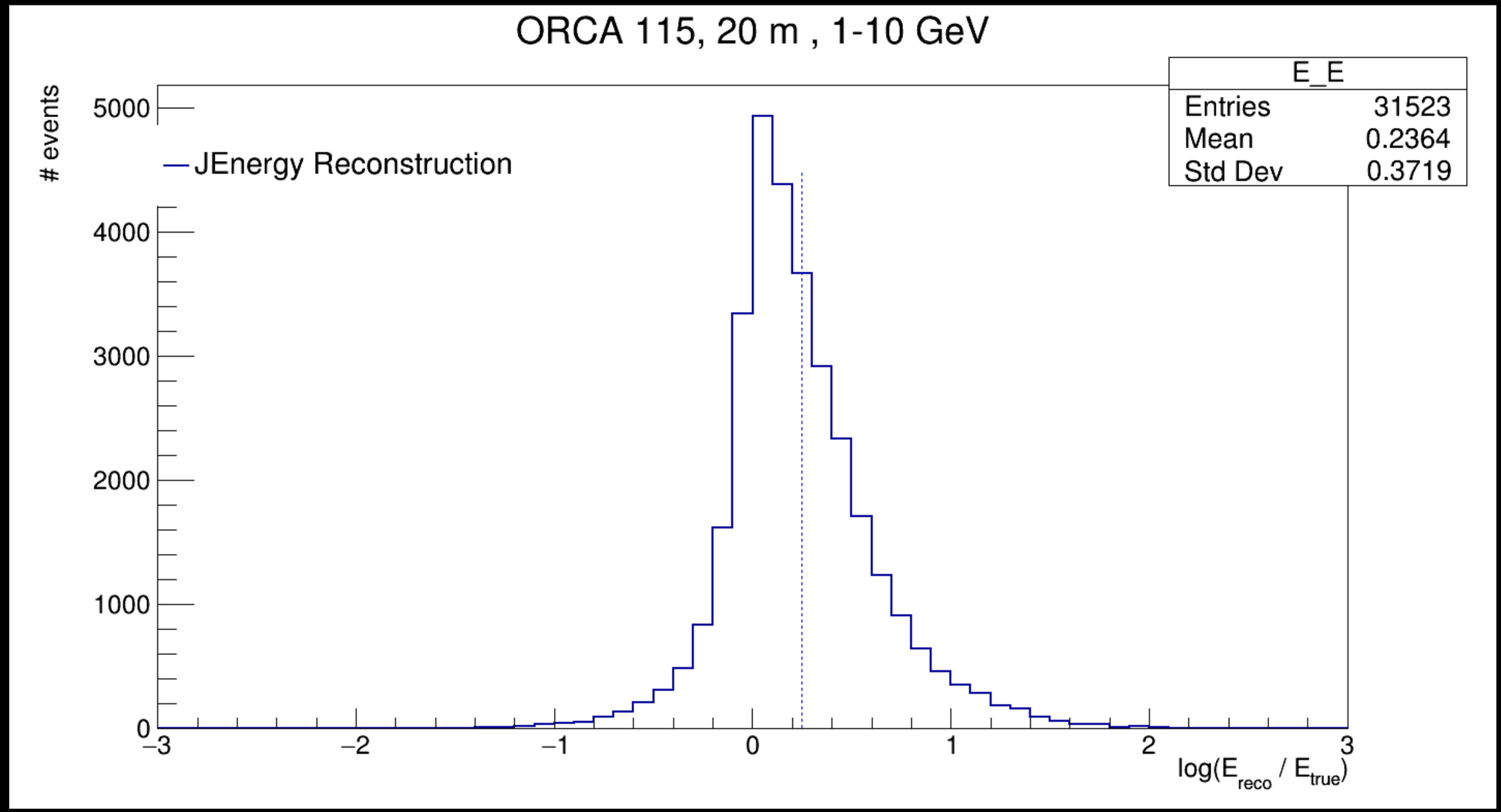
- ORCA 115, 1-10 Gev and 10-100 GeV files used
- No cuts
- No “optimisation” — simply using the same standard input parameters used in the full JShowerFit chain

Energy Ratio



Improvement at lower energies

Energy Ratio (show statistics)



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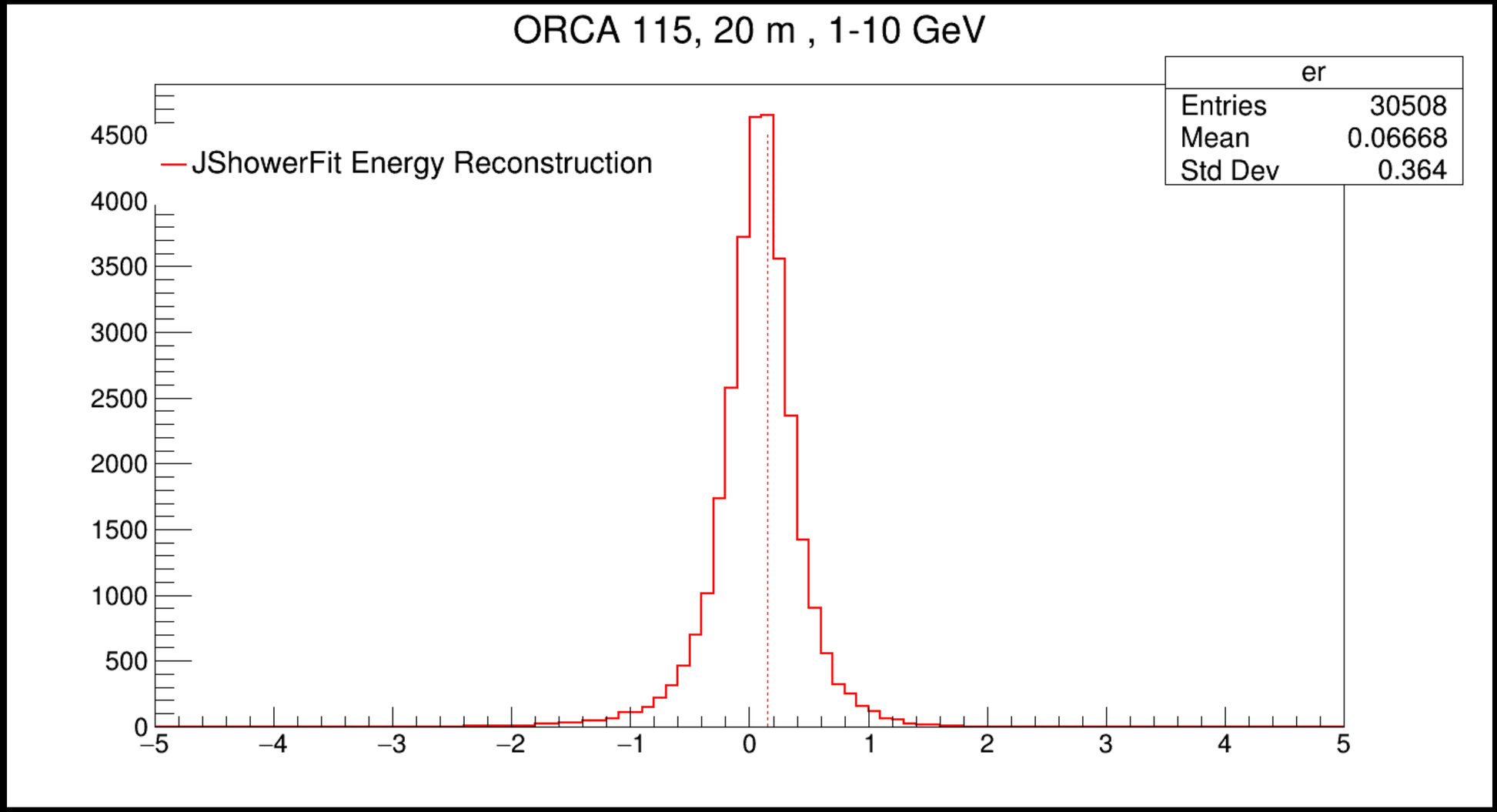

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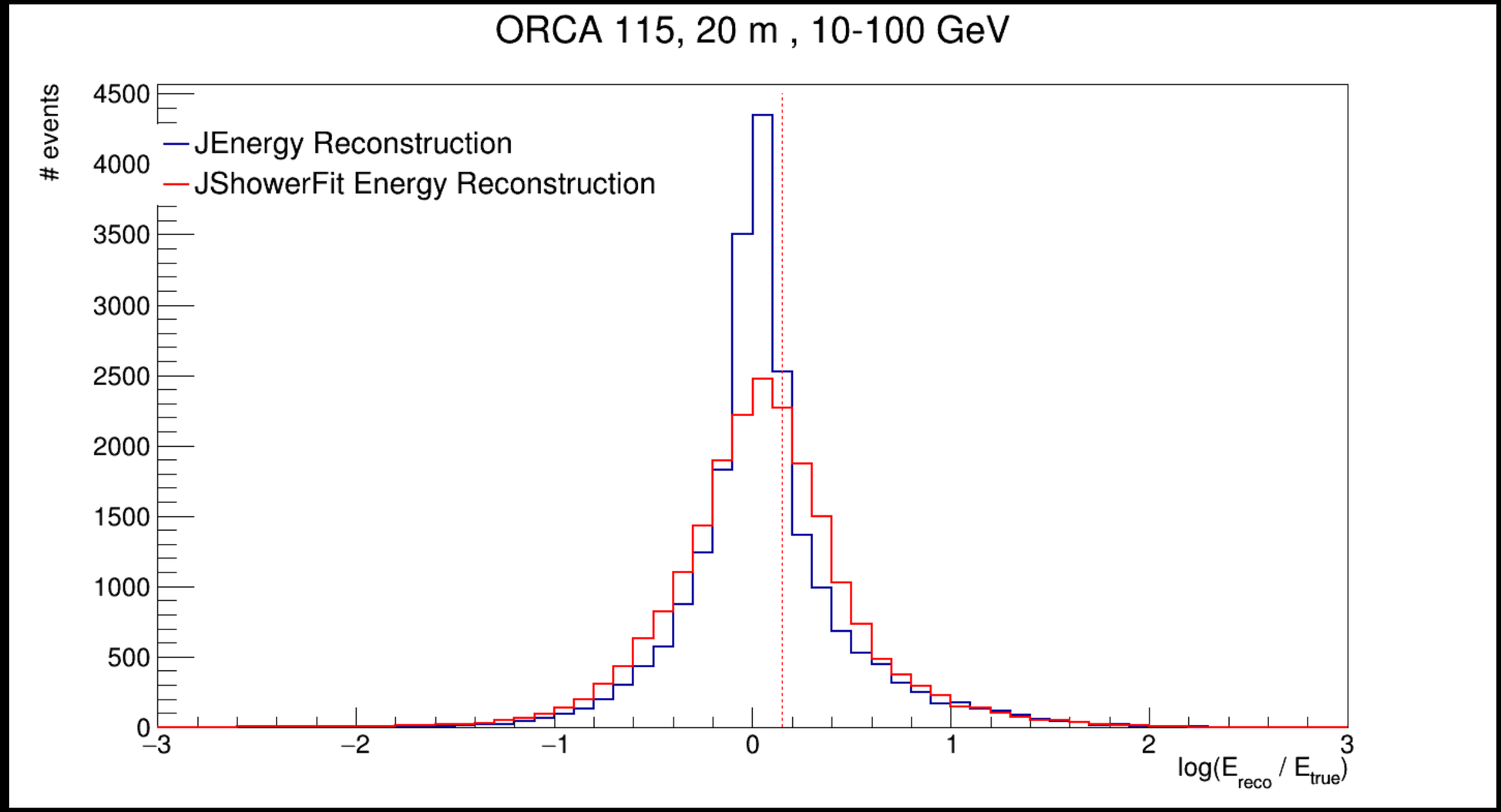
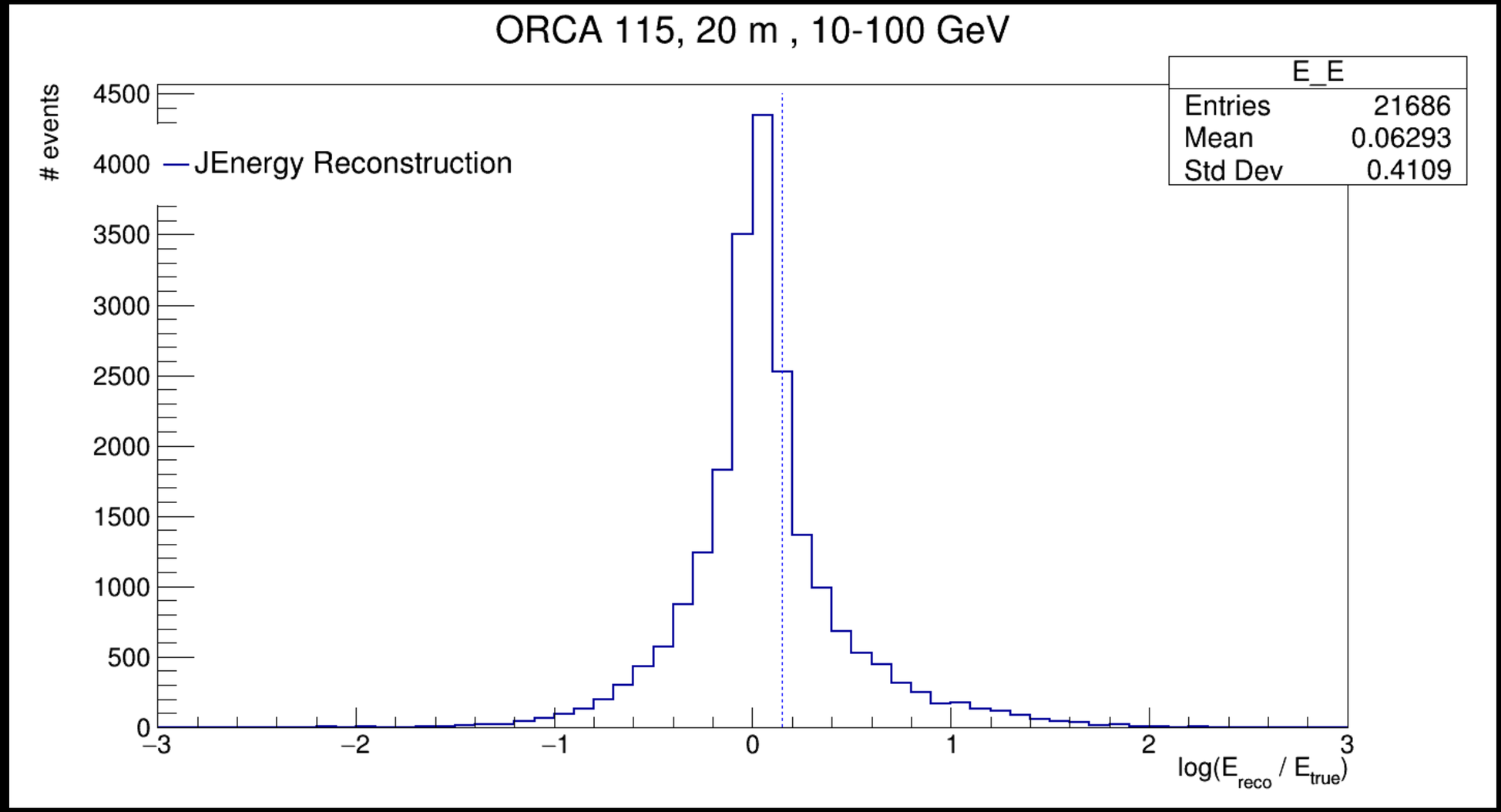


Medians approximately the same

Energy Ratio (statistics)



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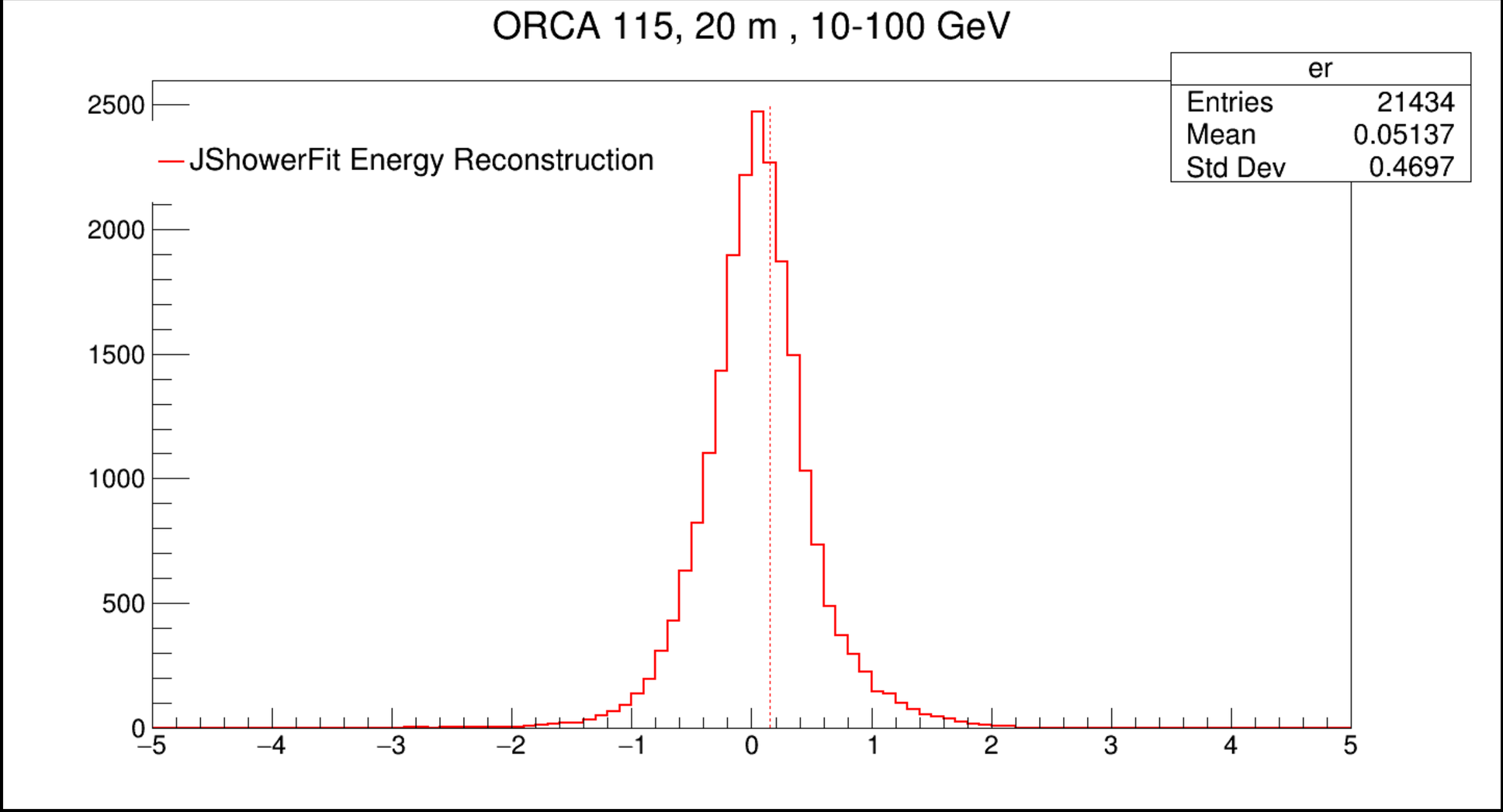

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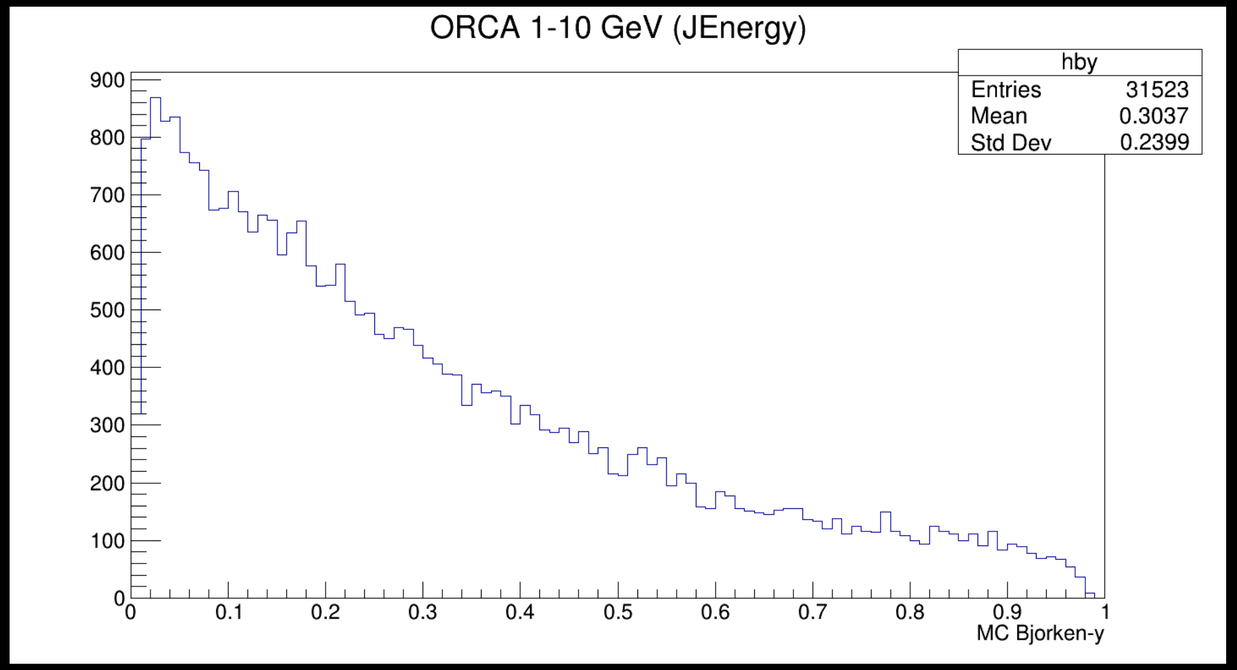

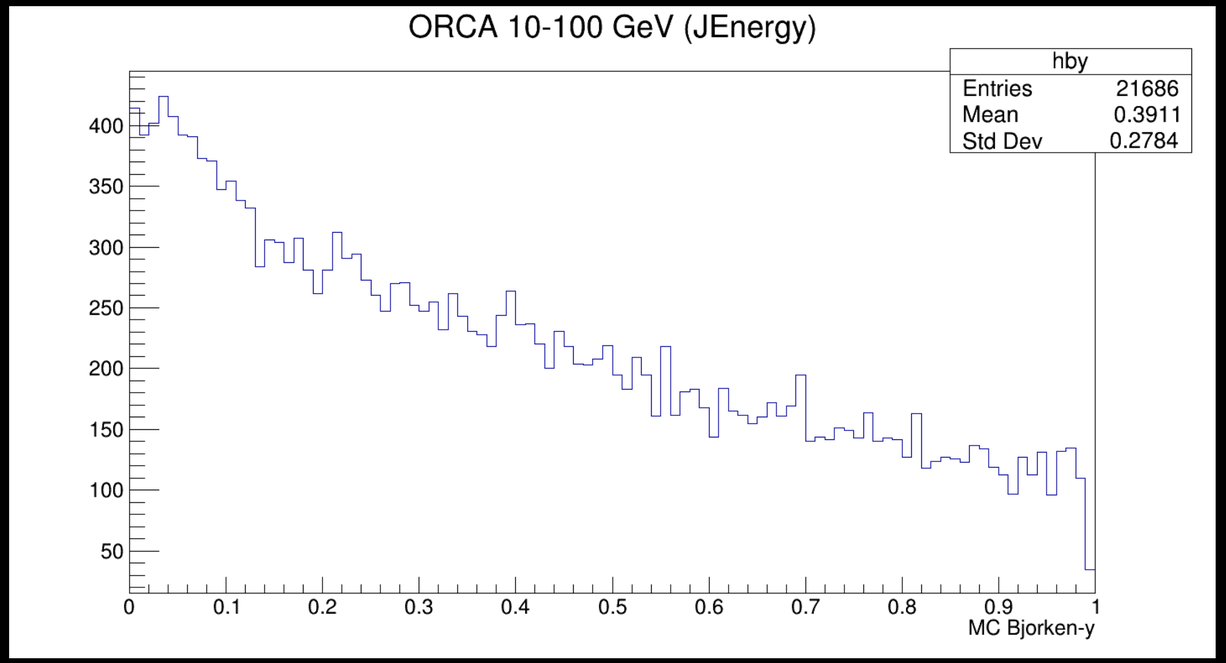

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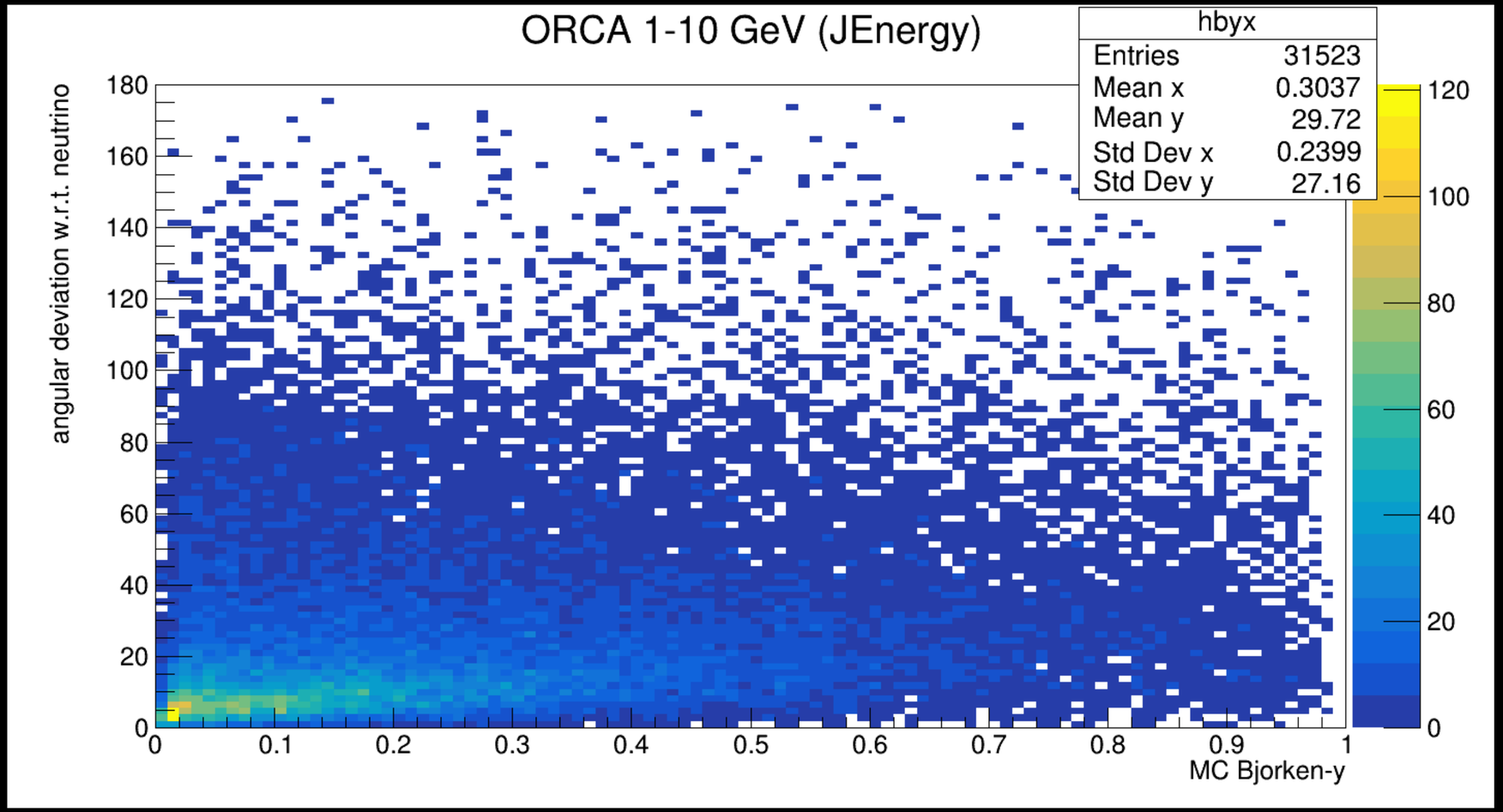

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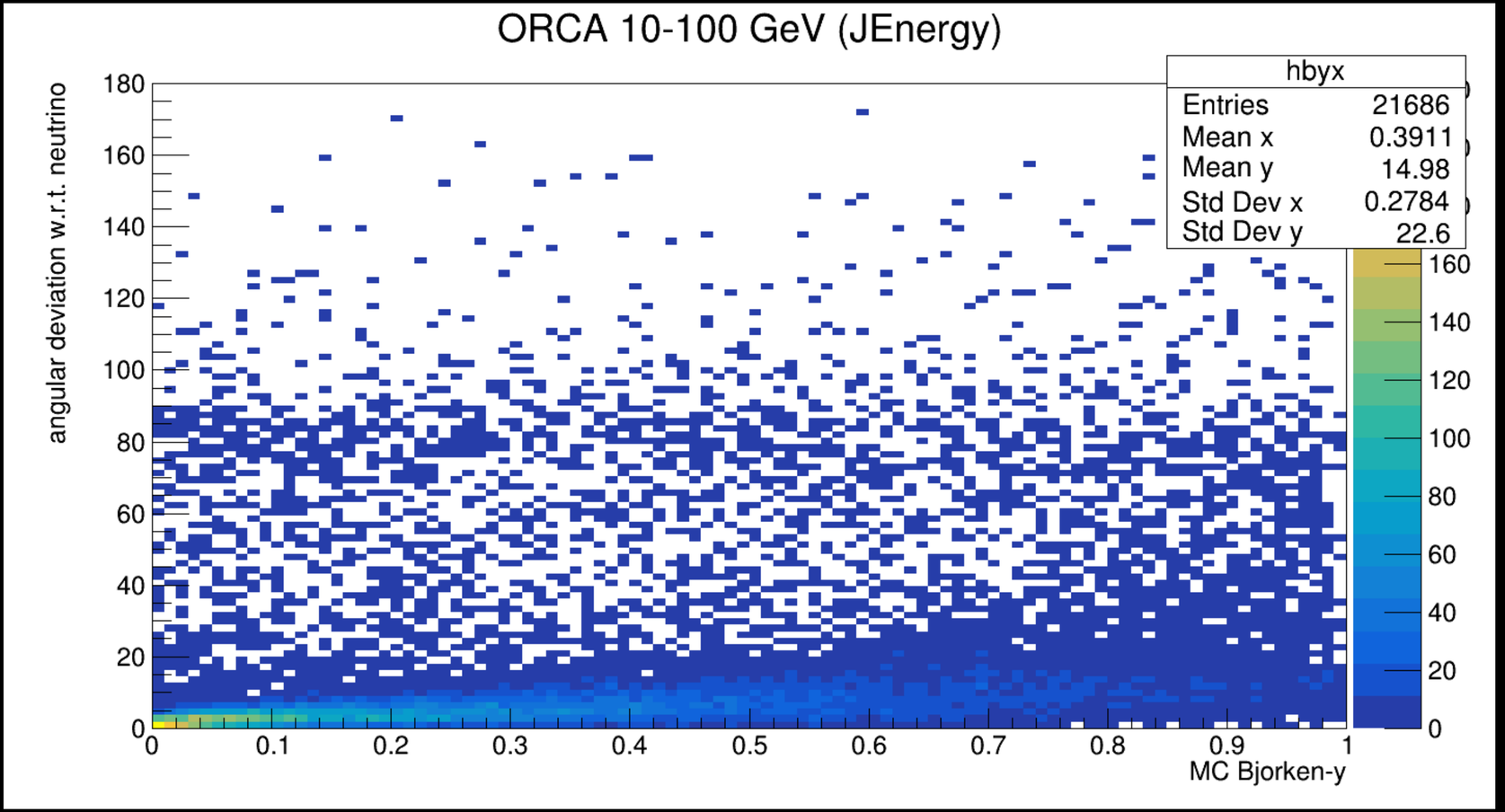

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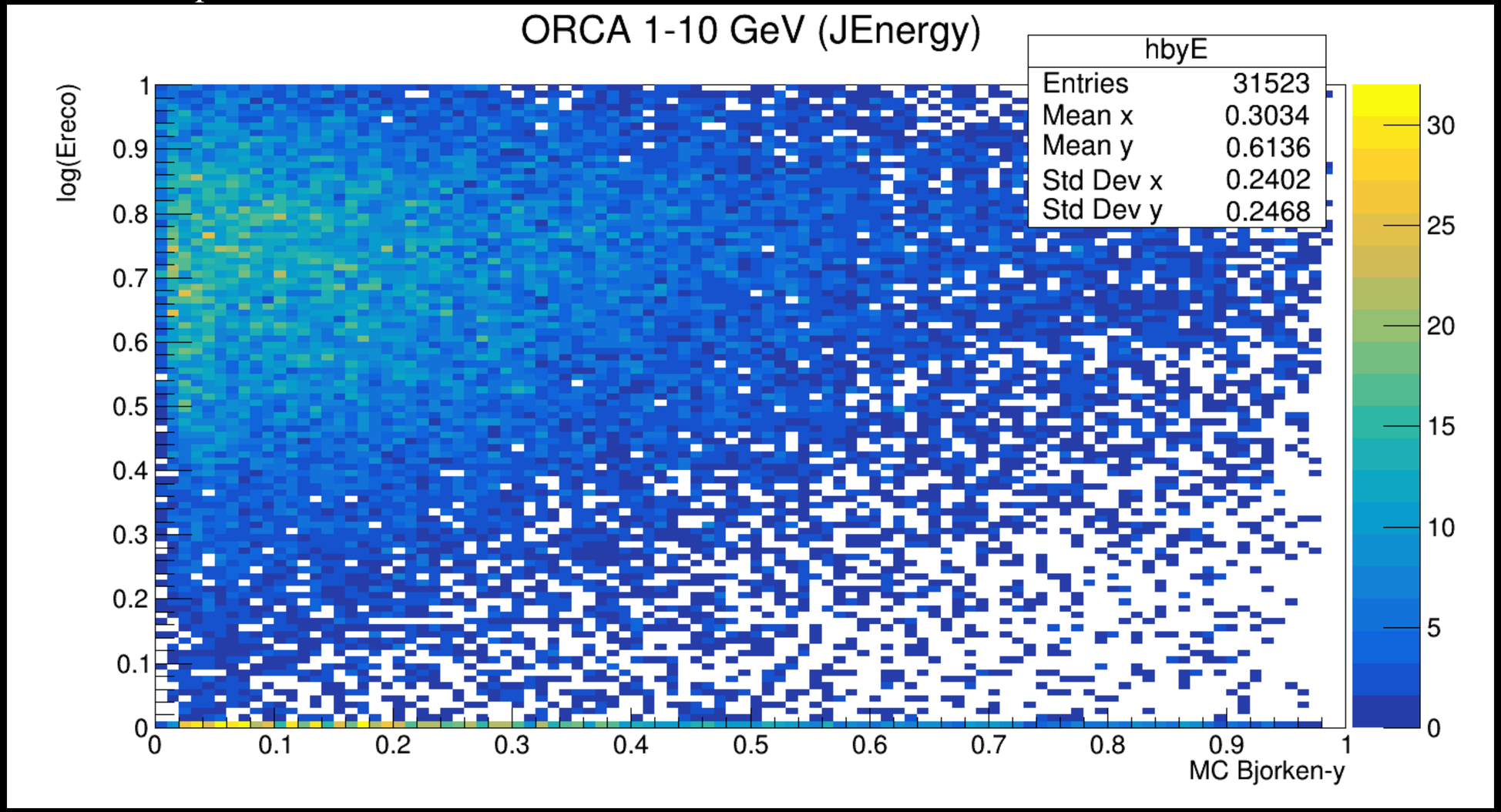

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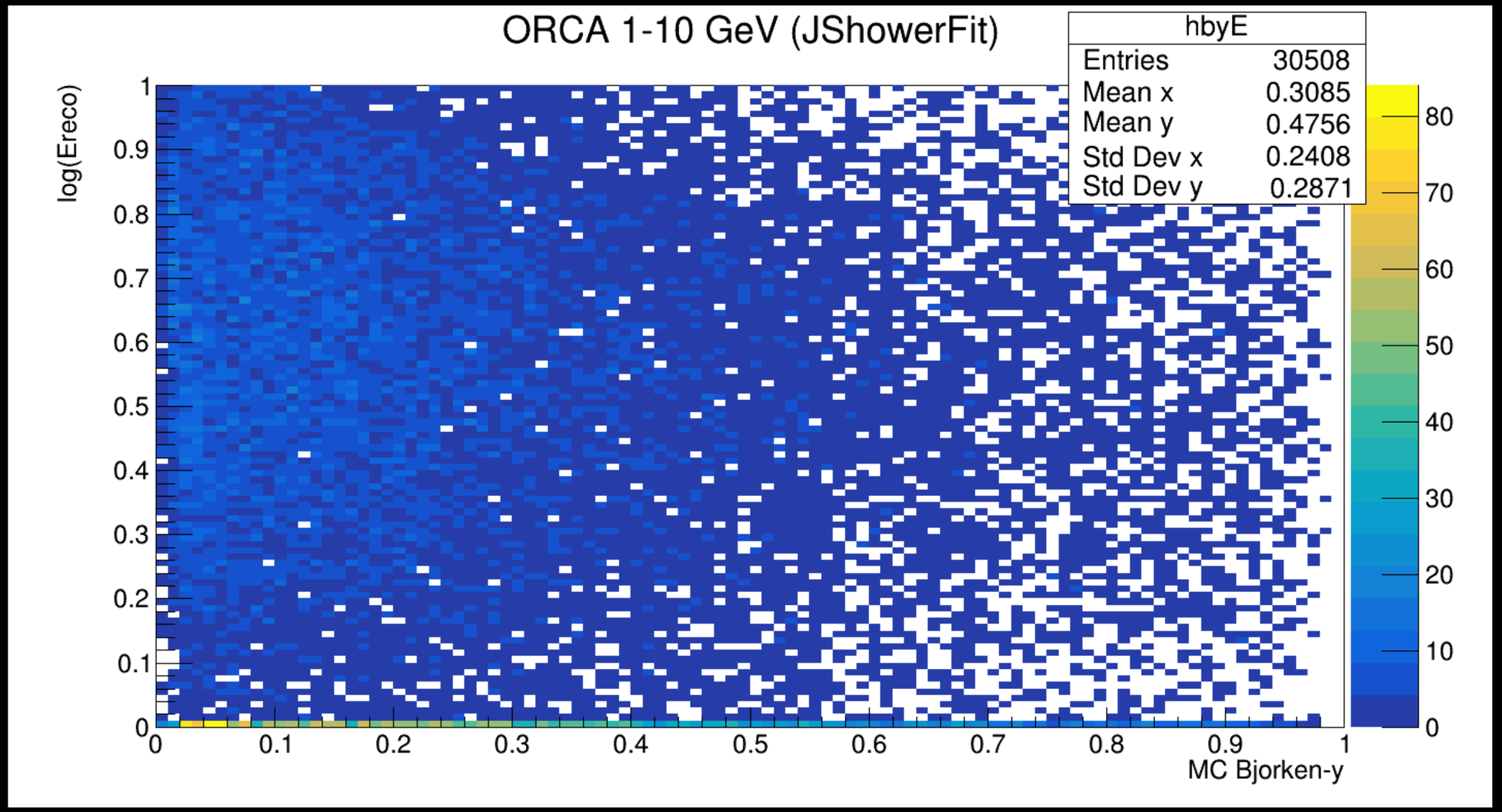

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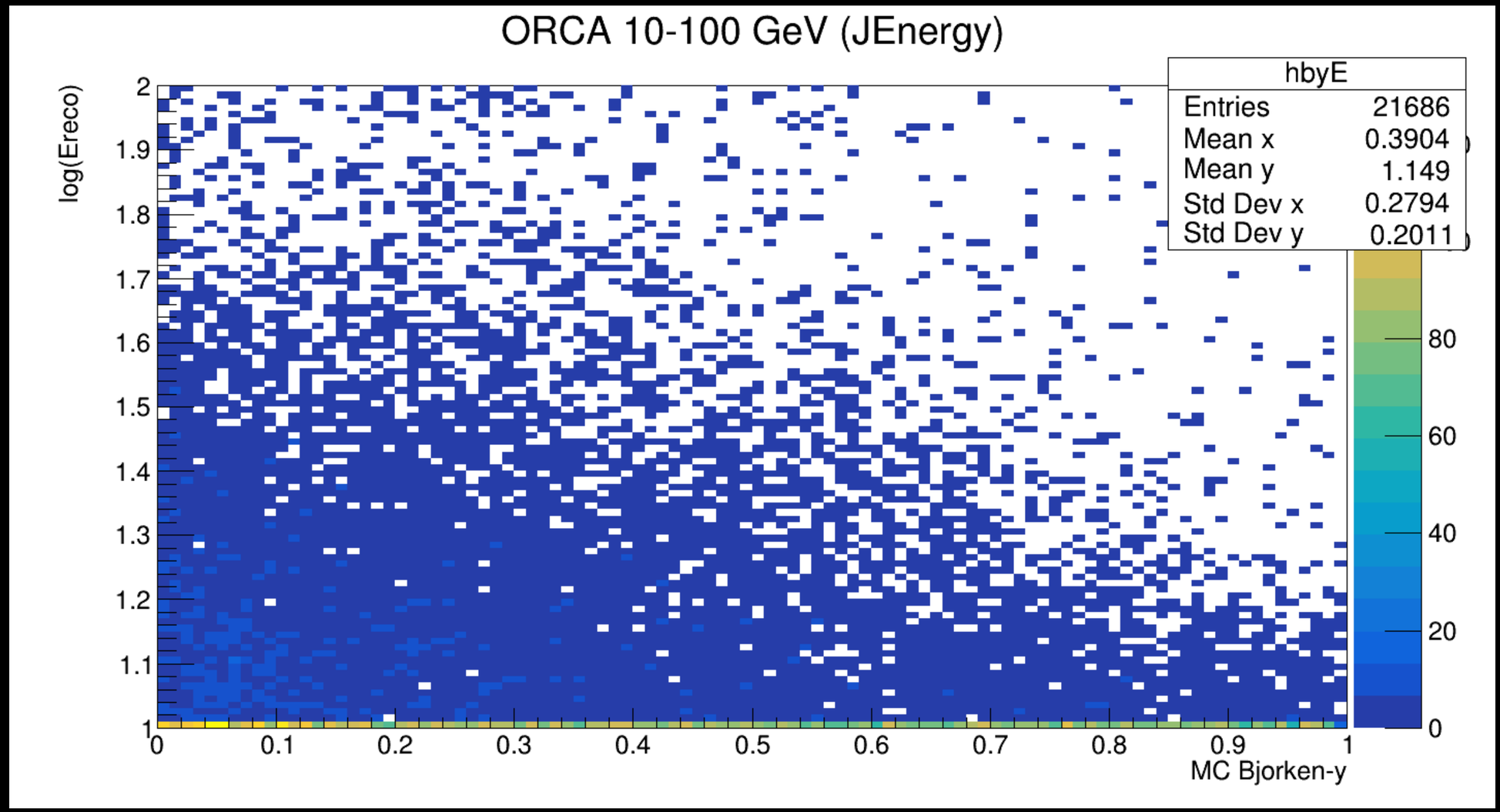

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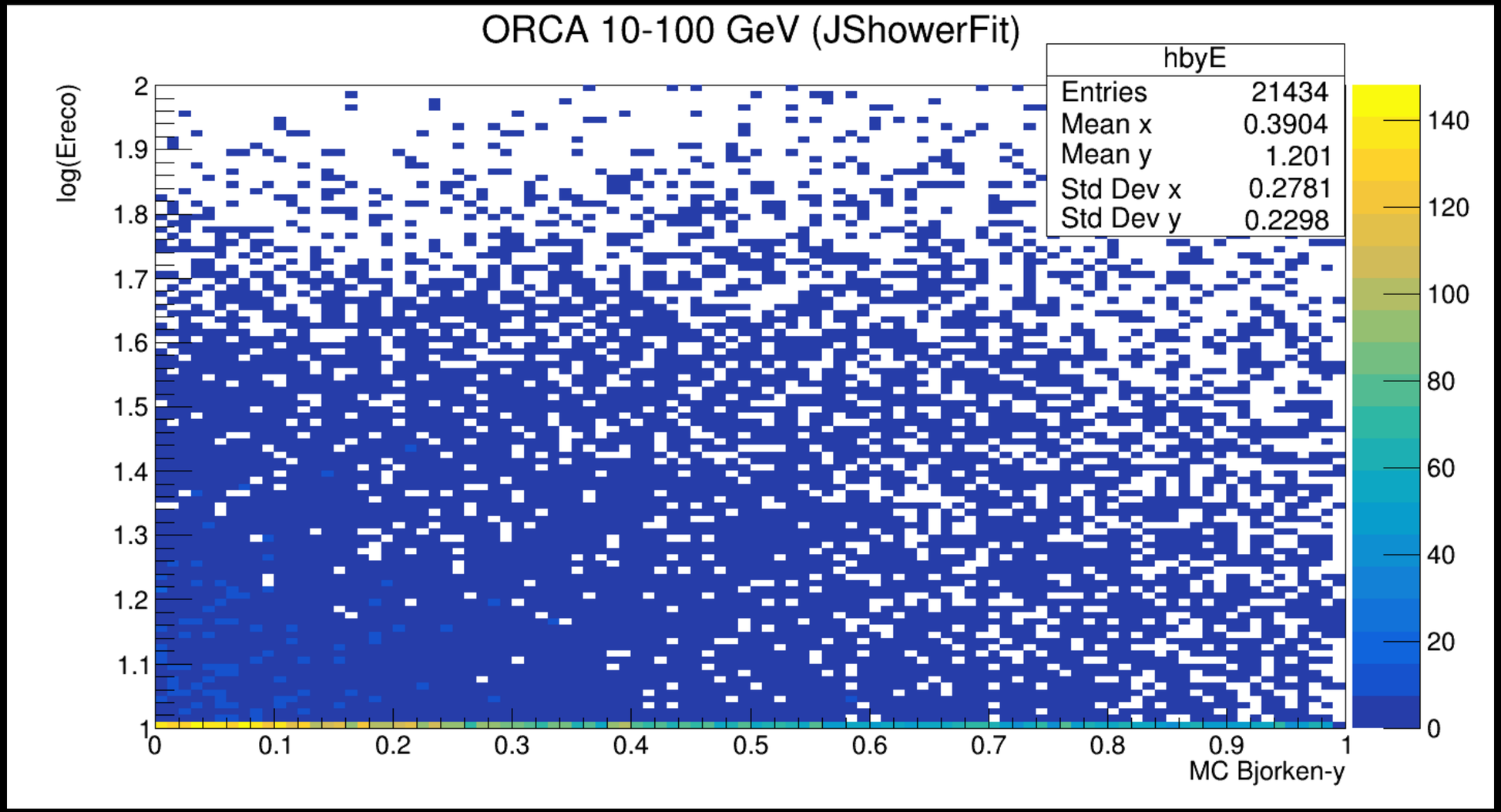

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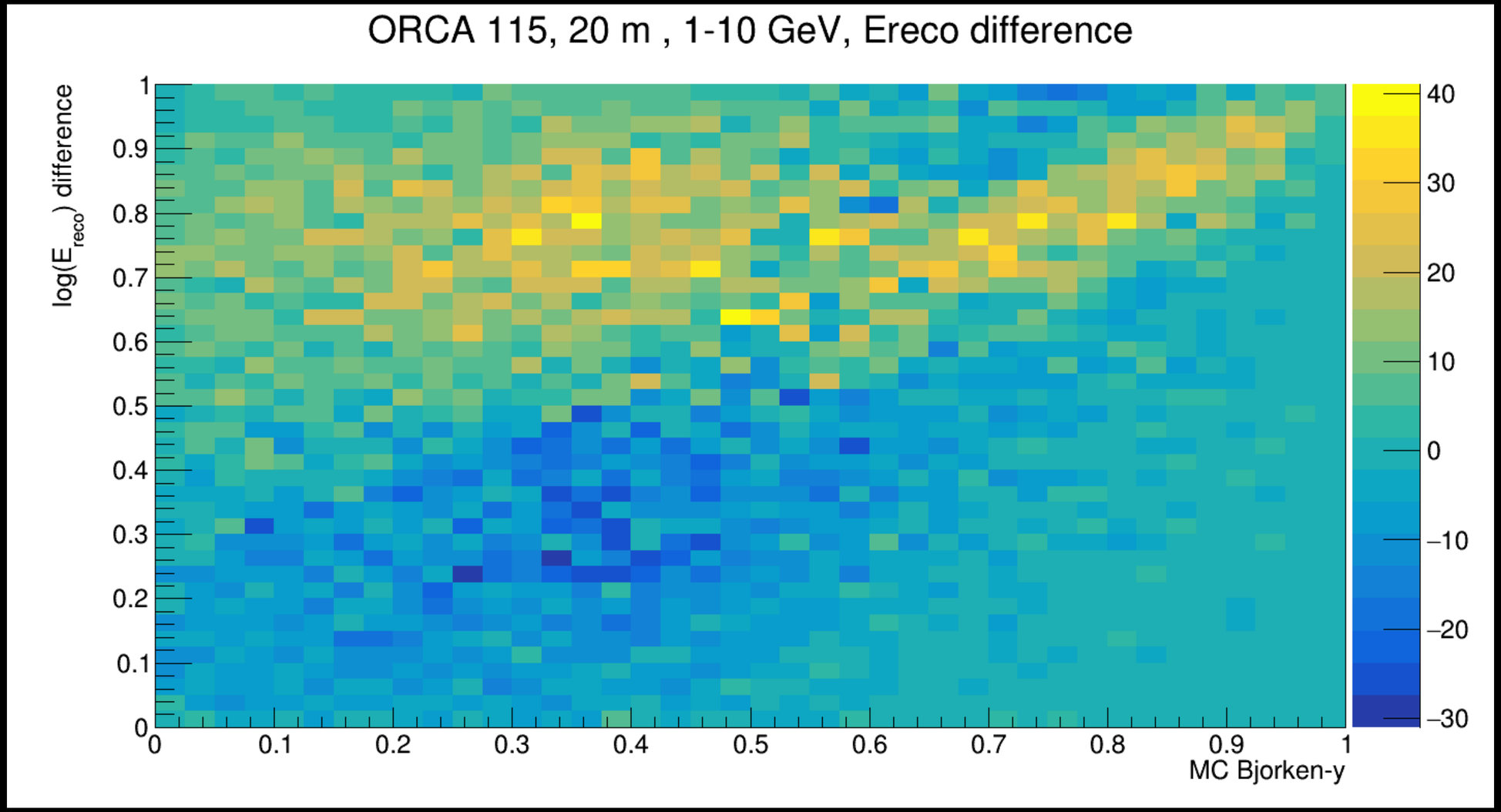
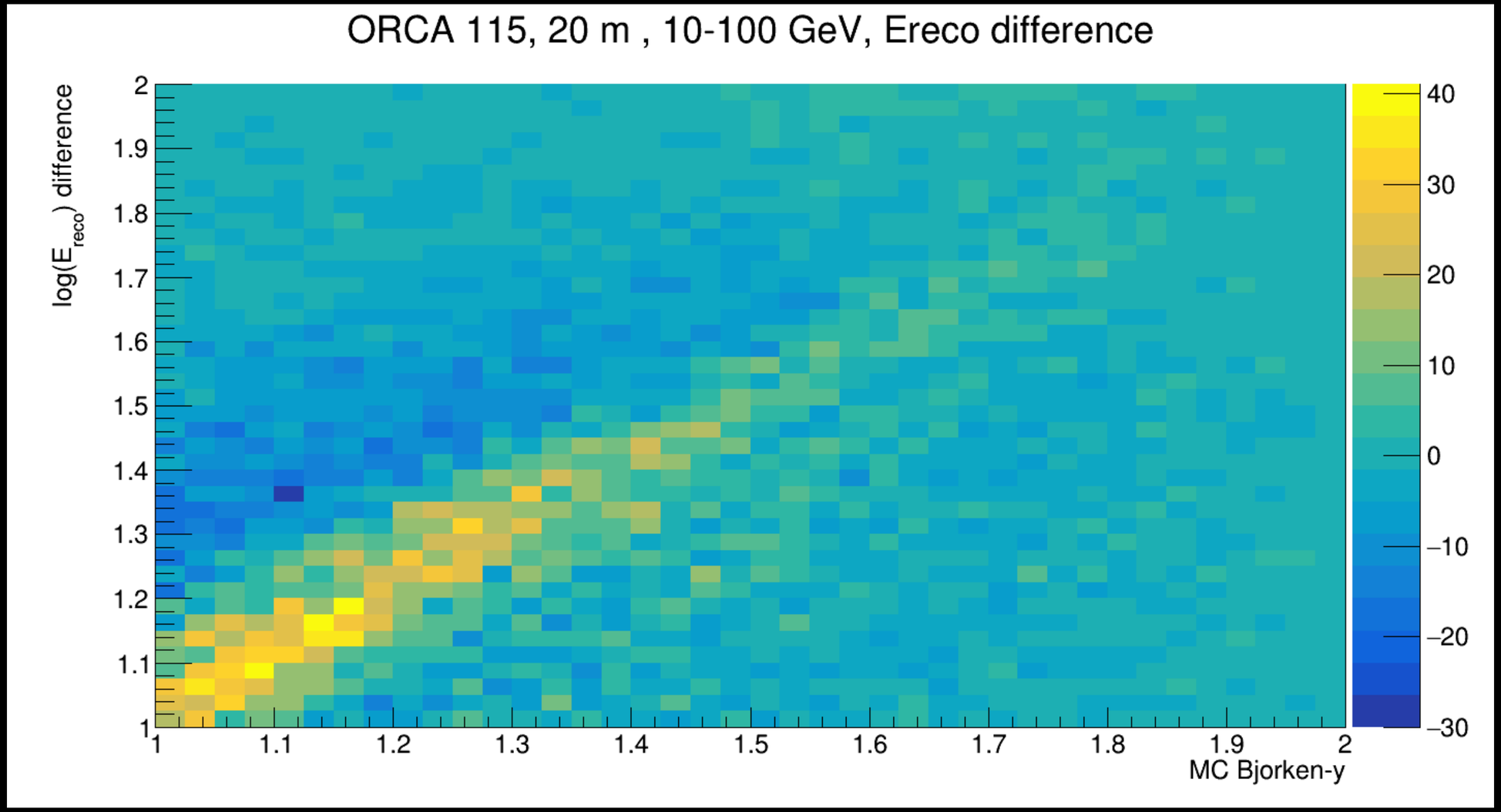
- -> Difference between the distributions

- Difference between the BjY vs. E_reco histograms for both cases: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