

Pedestal subtraction as simulation killer

Simulated May data (40 GeV muons)
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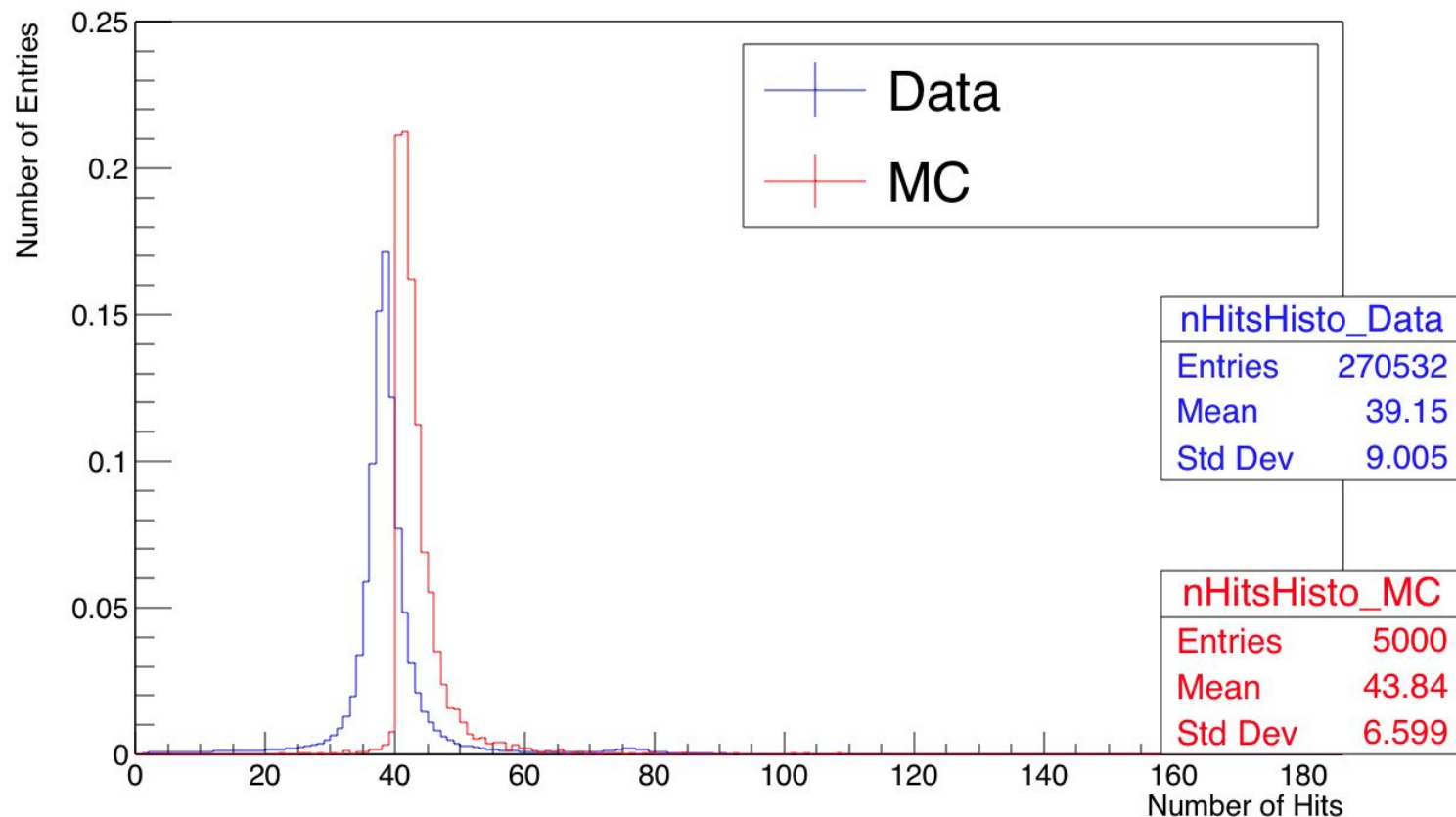
DER FORSCHUNG | DER LEHRE | DER BILDUNG



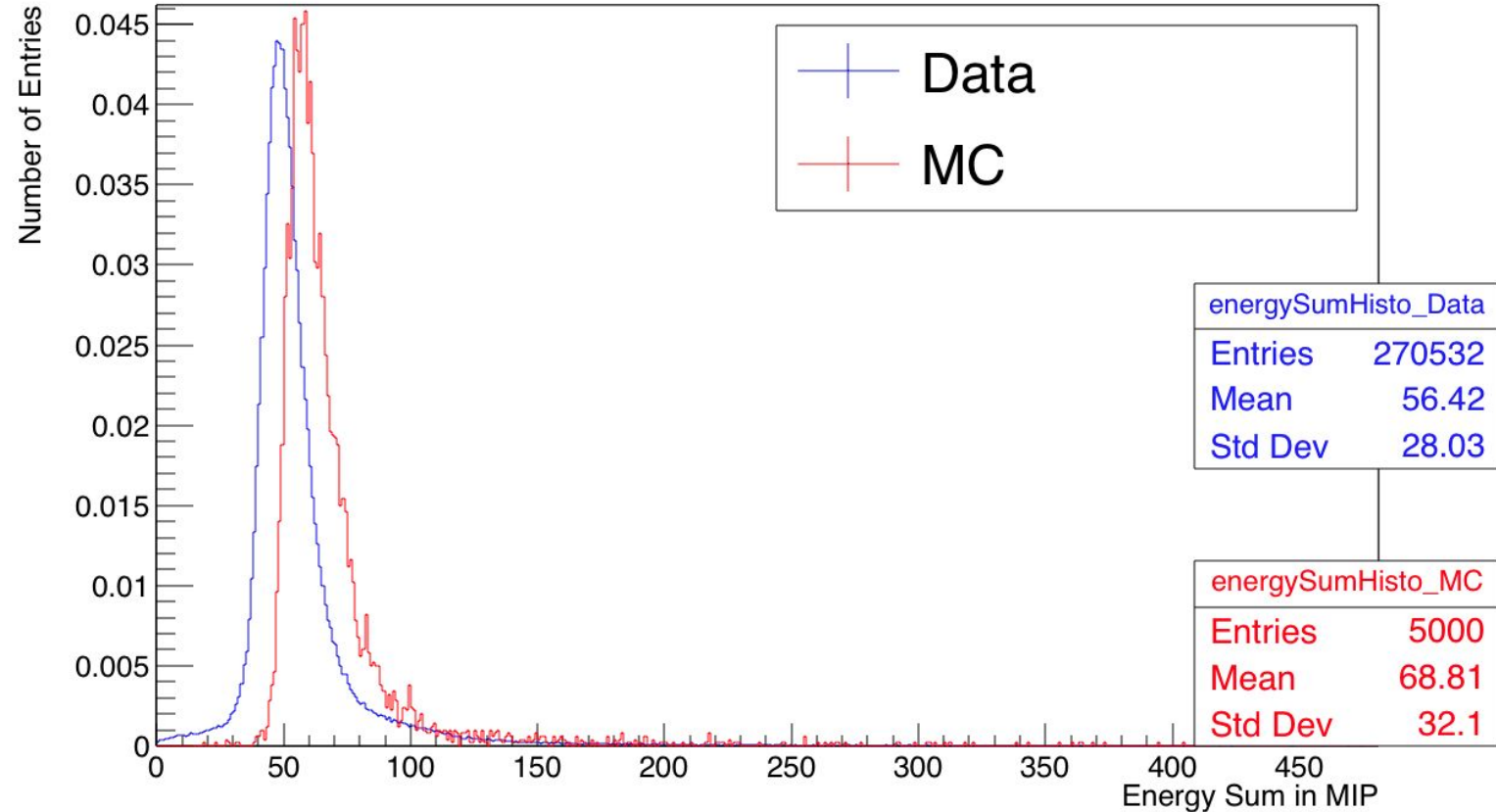
Problem identified

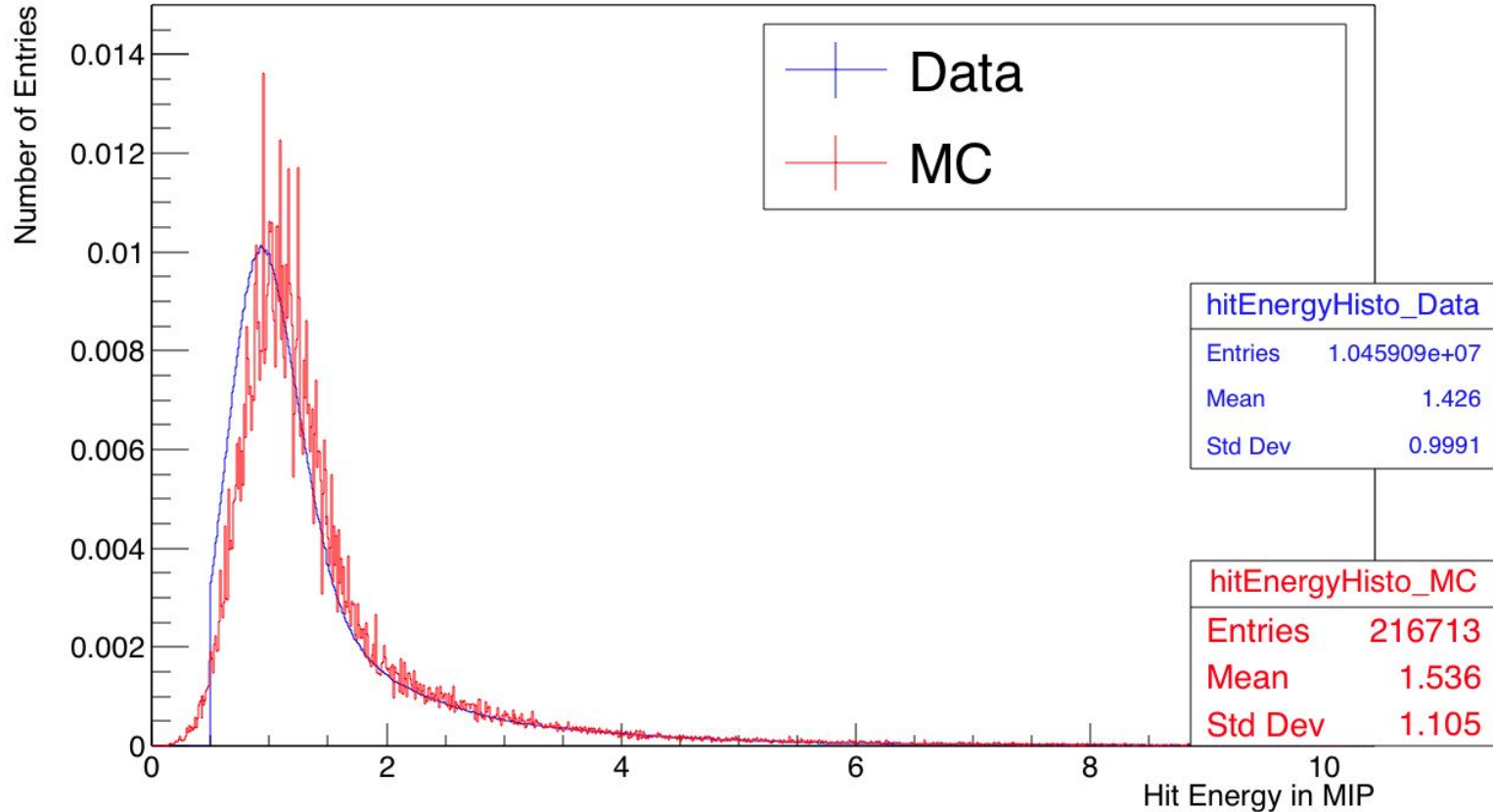
- Simulation killer: pedestal subtraction in reco steering file
 - usage of same reco steering for data and simulation
- Following plots: scaled to $1/\text{integral}$

nHits

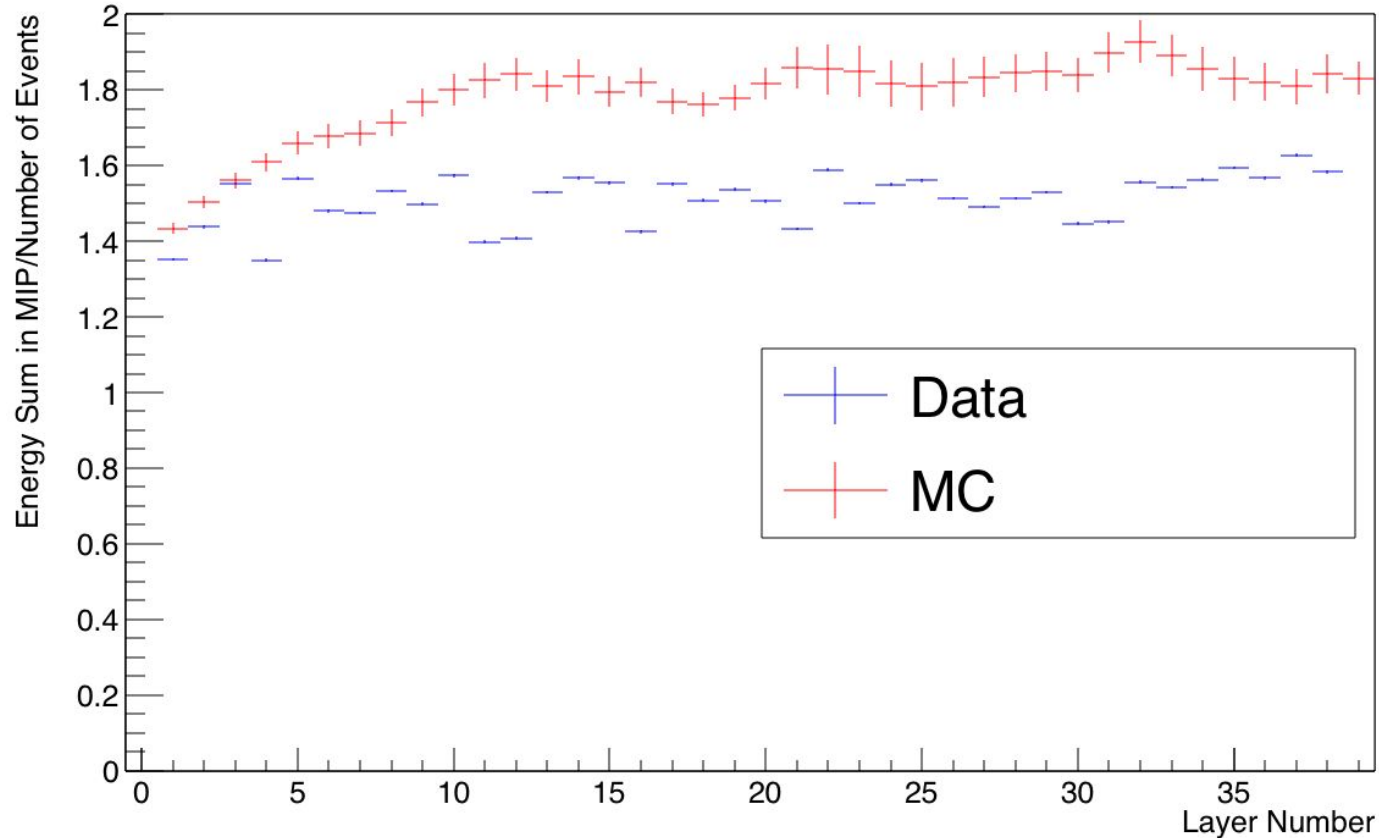


energySum

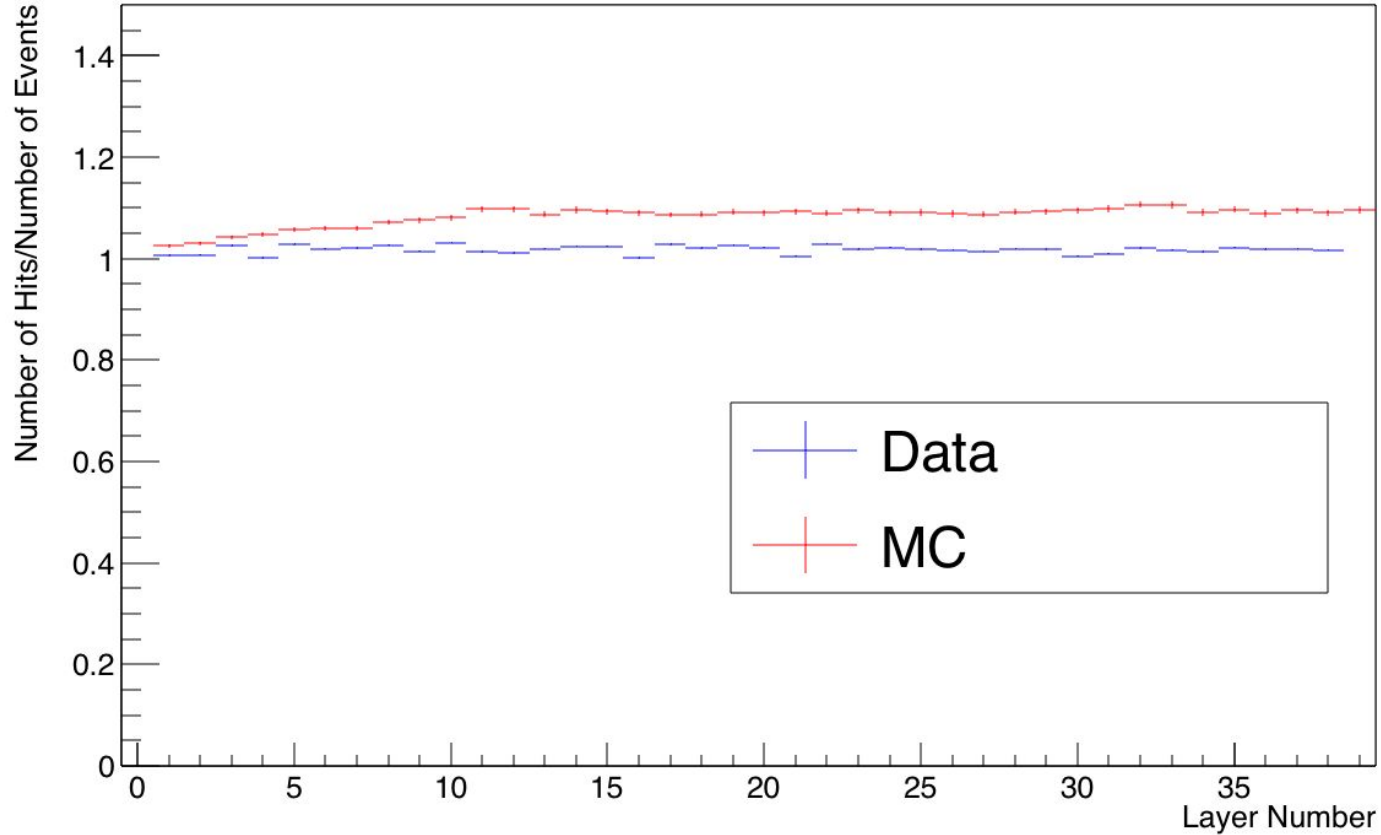




shower profile



number of hits profile



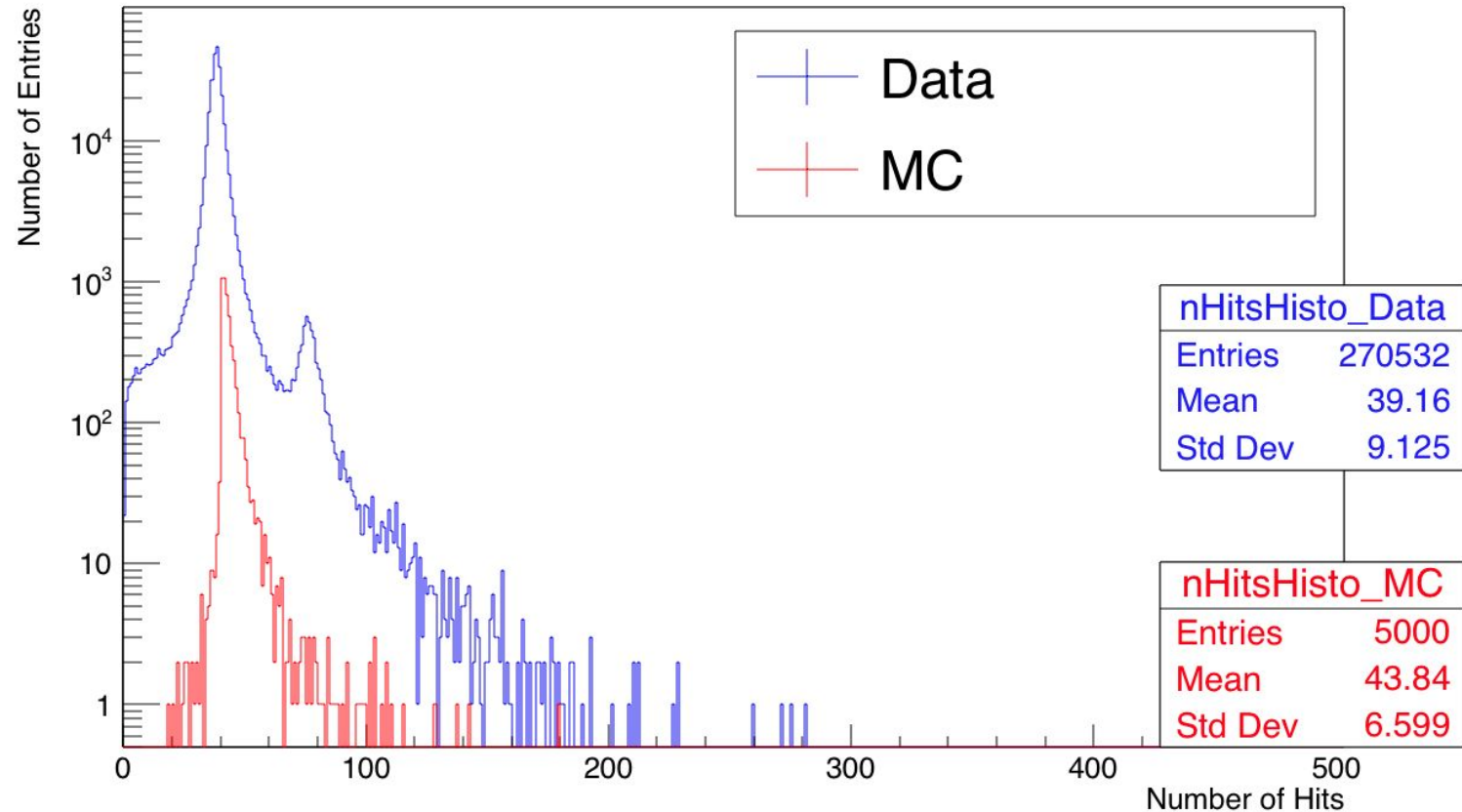
Problem identified (and solved)

- Simulation killer: pedestal subtraction in reco steering file
 - usage of same reco steering for data and simulation
 - Temporary solution: switch off pedestal subtraction in simulation reco
 - Final solution: changed SiPM reco code to only do pedestal subtraction for data
 - Waiting for addition to common software
- **Simulations look much more like we expect them to**

Backup

- Following plots: not scaled

nHits



energySum

