SiW-ECAL
Reconstruction & Digitization

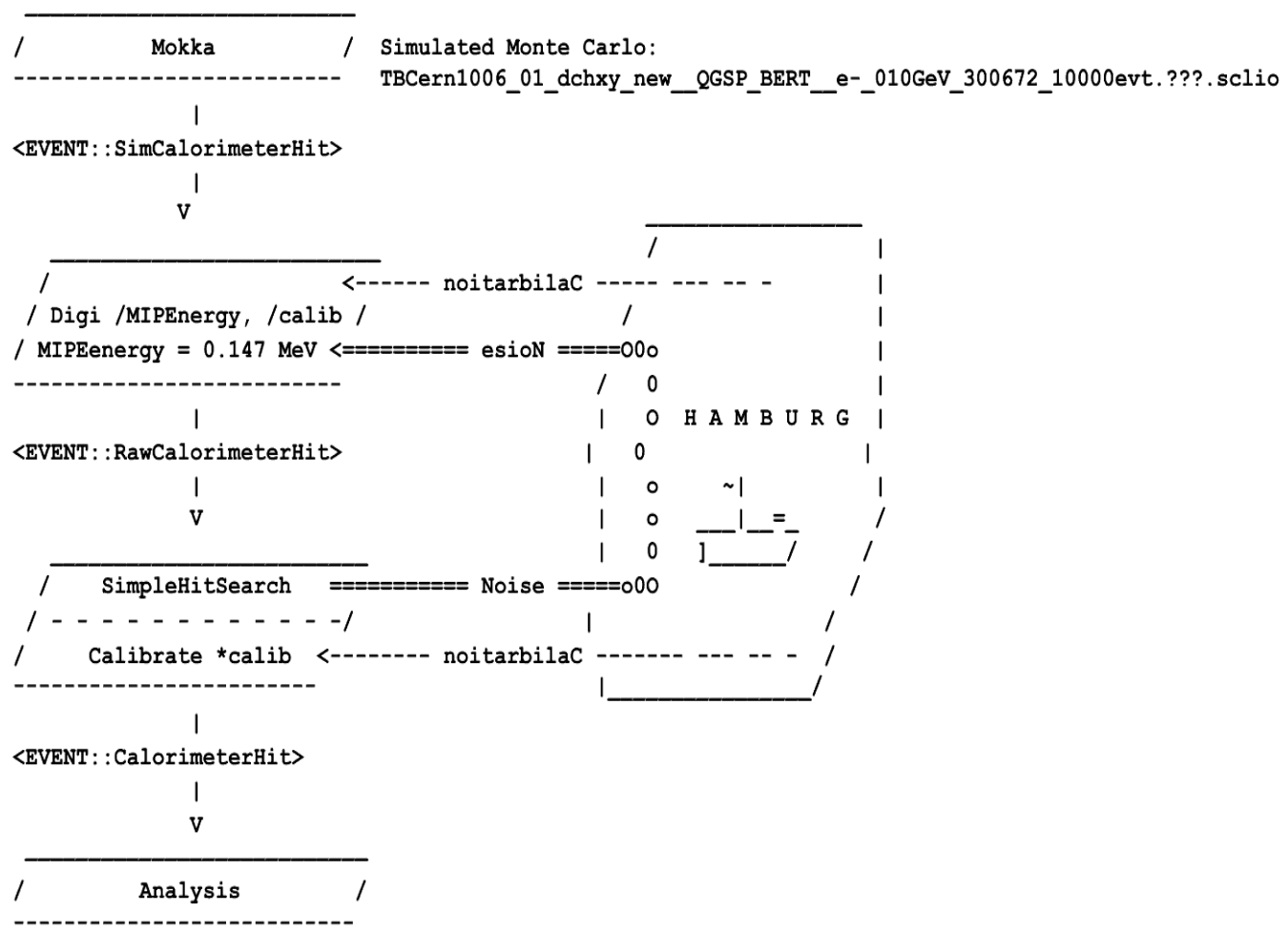
Kalôyan Krastev

Laboratoire de Physique Subatomique et de Cosmologie, Grenoble, FRANCE

DESY, 5 july 2010

Software

ECAL software is realized in terms of processors written in c++



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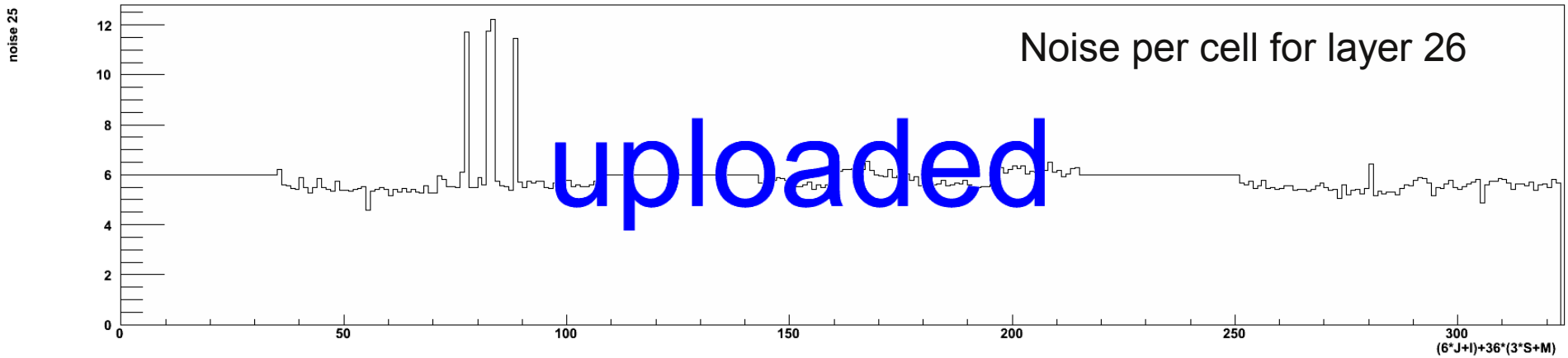
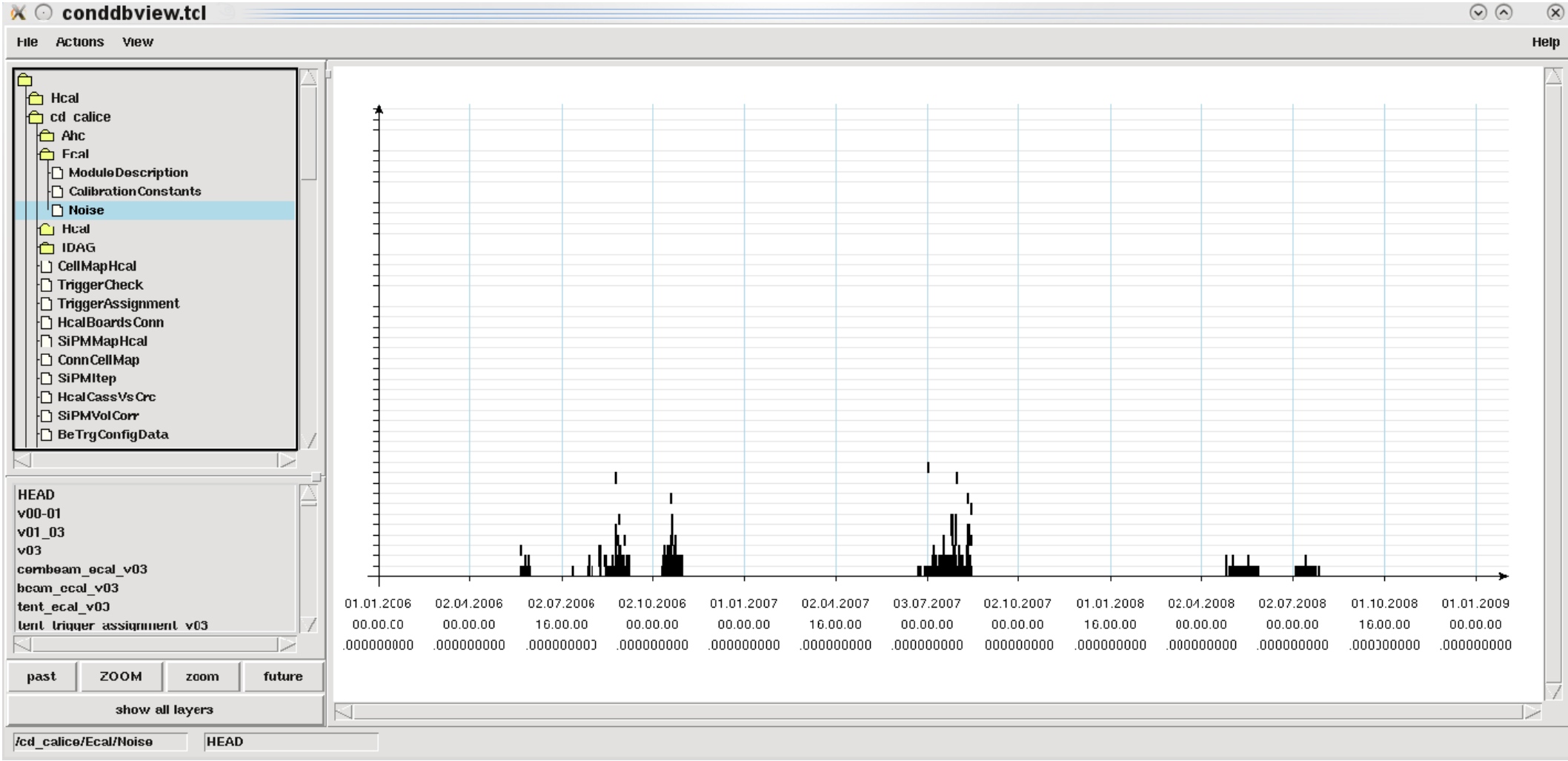
Noise

Calibration constants and noise are stored in a MySQL database at DESY – Hamburg.
Reconstruction is done on the GRID with access to the MySQL server.
Run dependent noise is used for digitization of Monte Carlo.



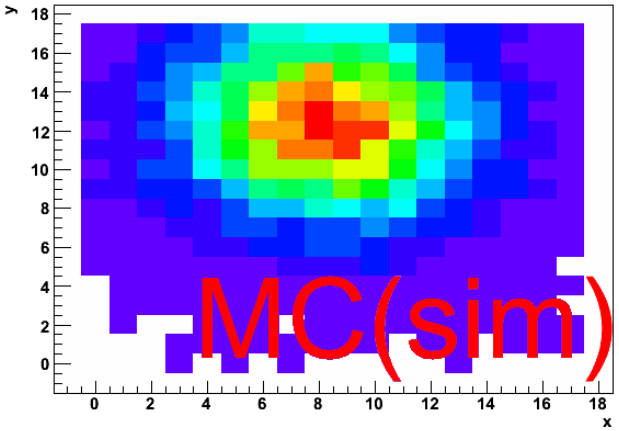
/cd_calice/Ecal/Noise

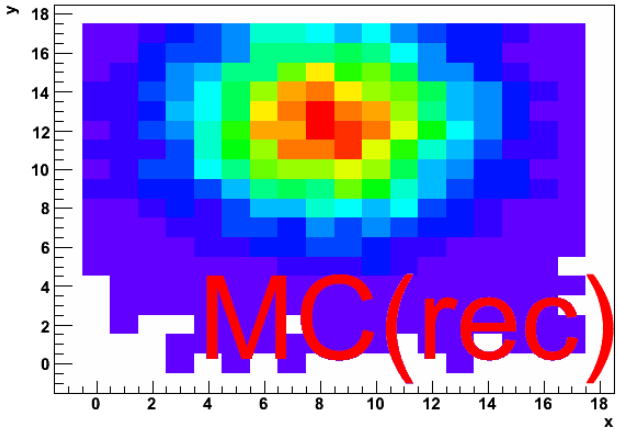


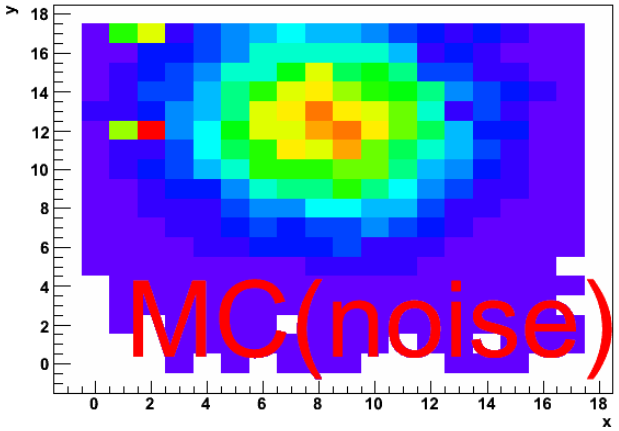
Recently uploaded noise for 2006, 2007 and 2008 data with SiW ECAL

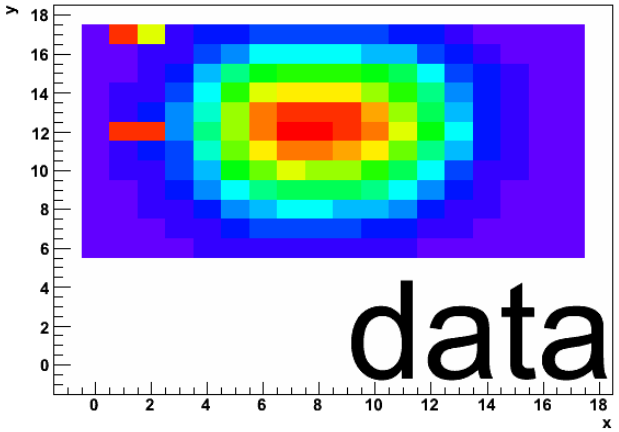
Digitization

Hit map → number of hits per cell in layer 26
in a 10 GeV electron run









Simulation closer to data after real digitization
Expected to contribute for better agreement

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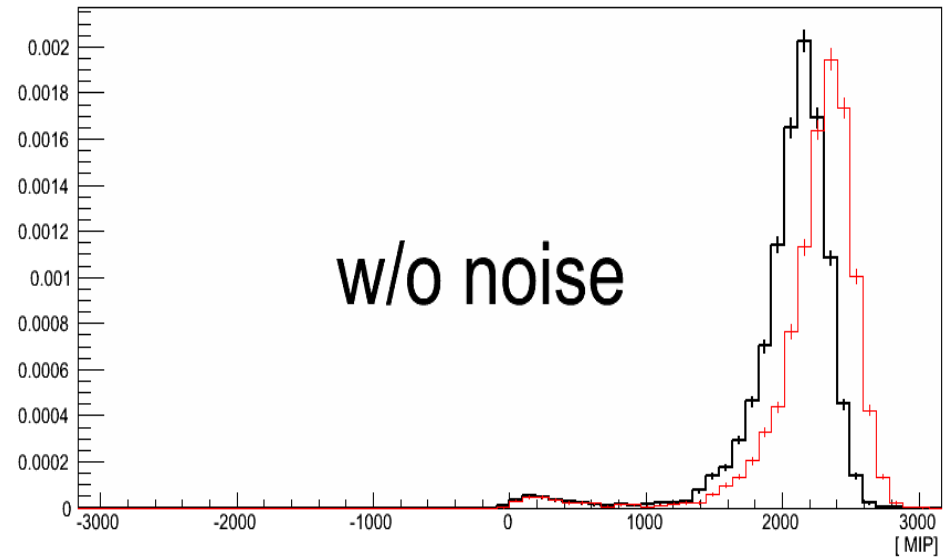
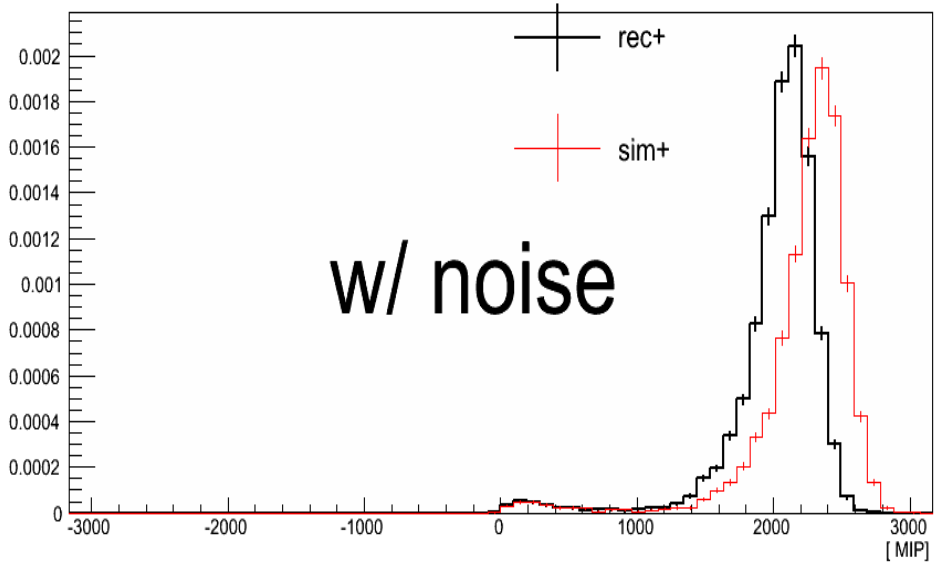
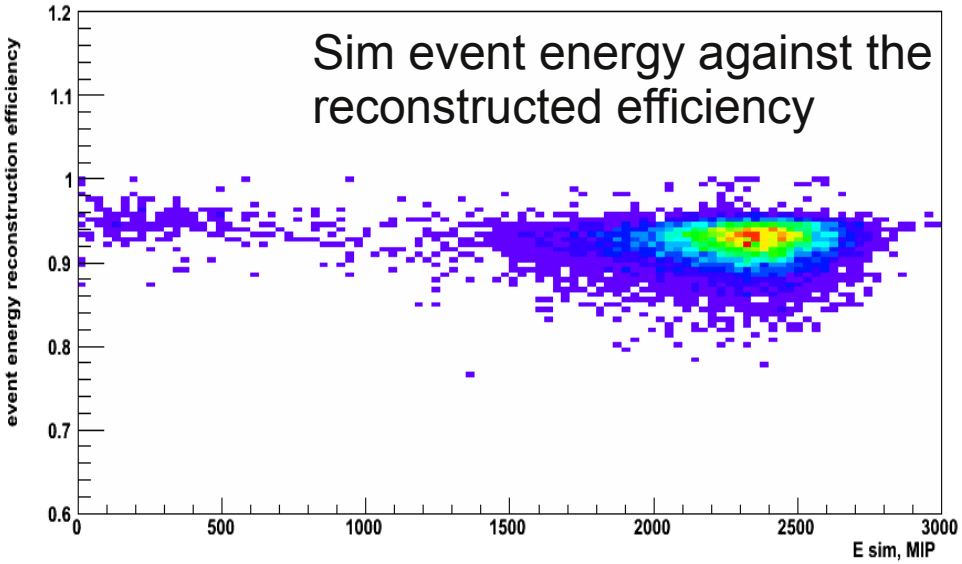
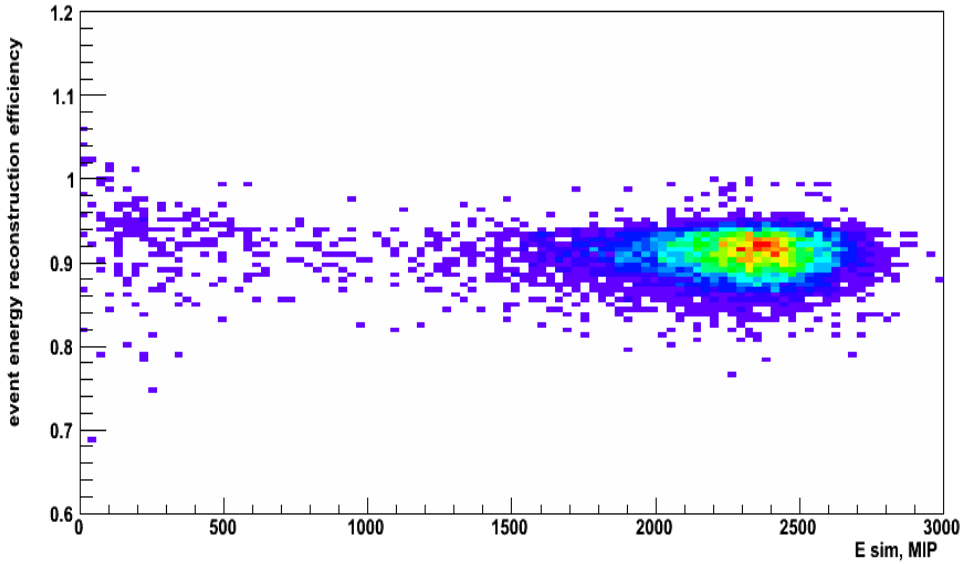
Missing energy

Event energy, MIP, before/after the reconstruction



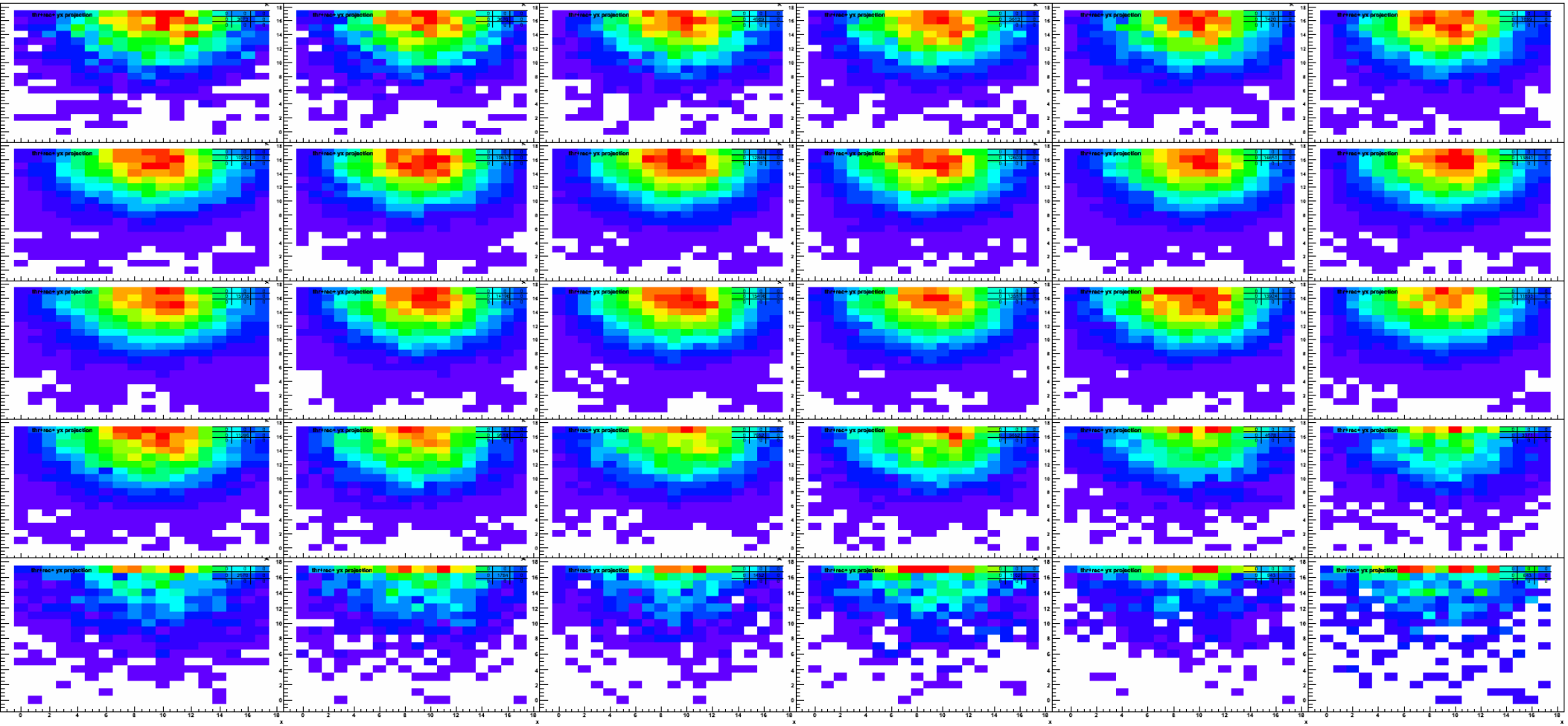






New Monte Carlo

Same run number 300672.
QGSP BERT physics.
Barycenter is on the edge
of ECAL????



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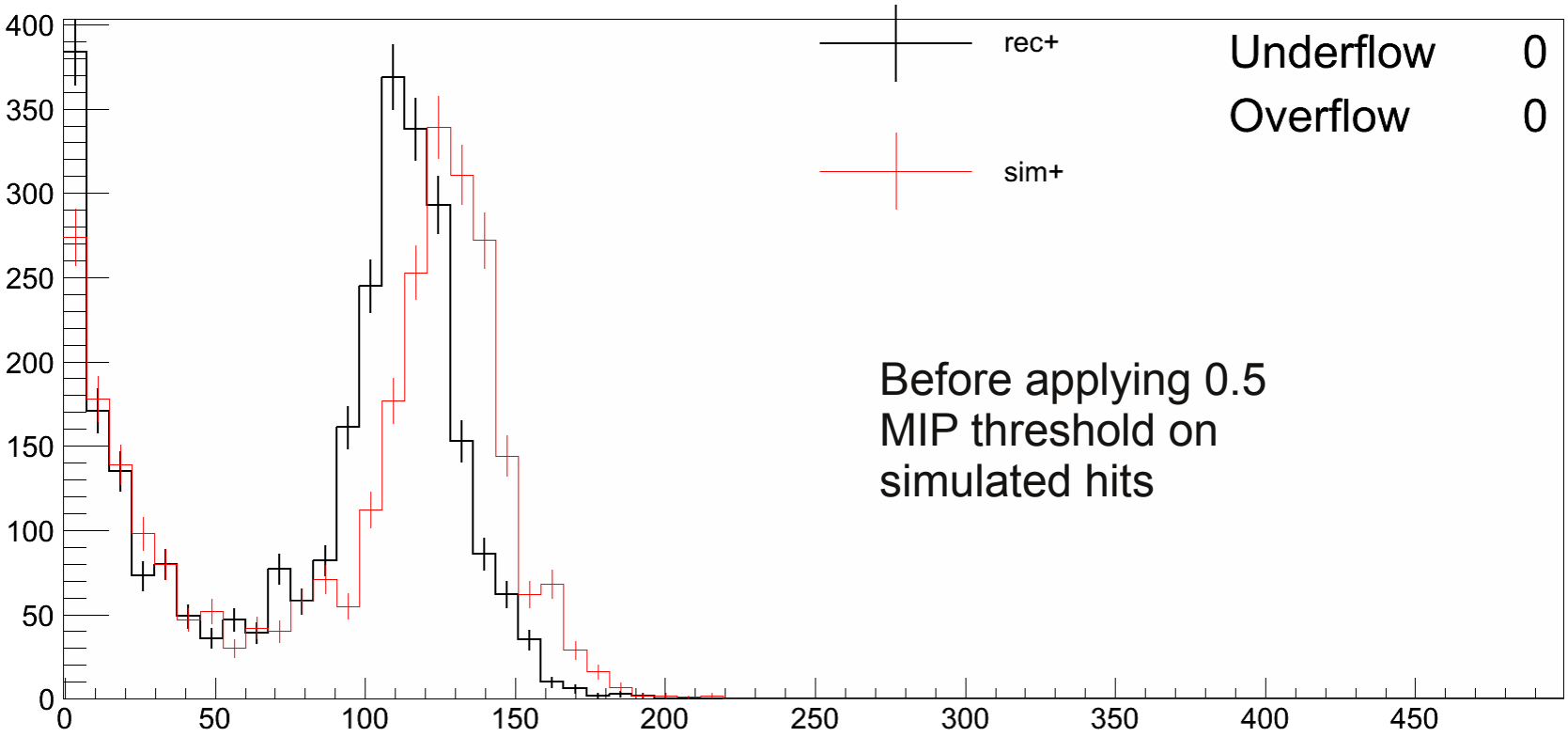
Hit multiplicity



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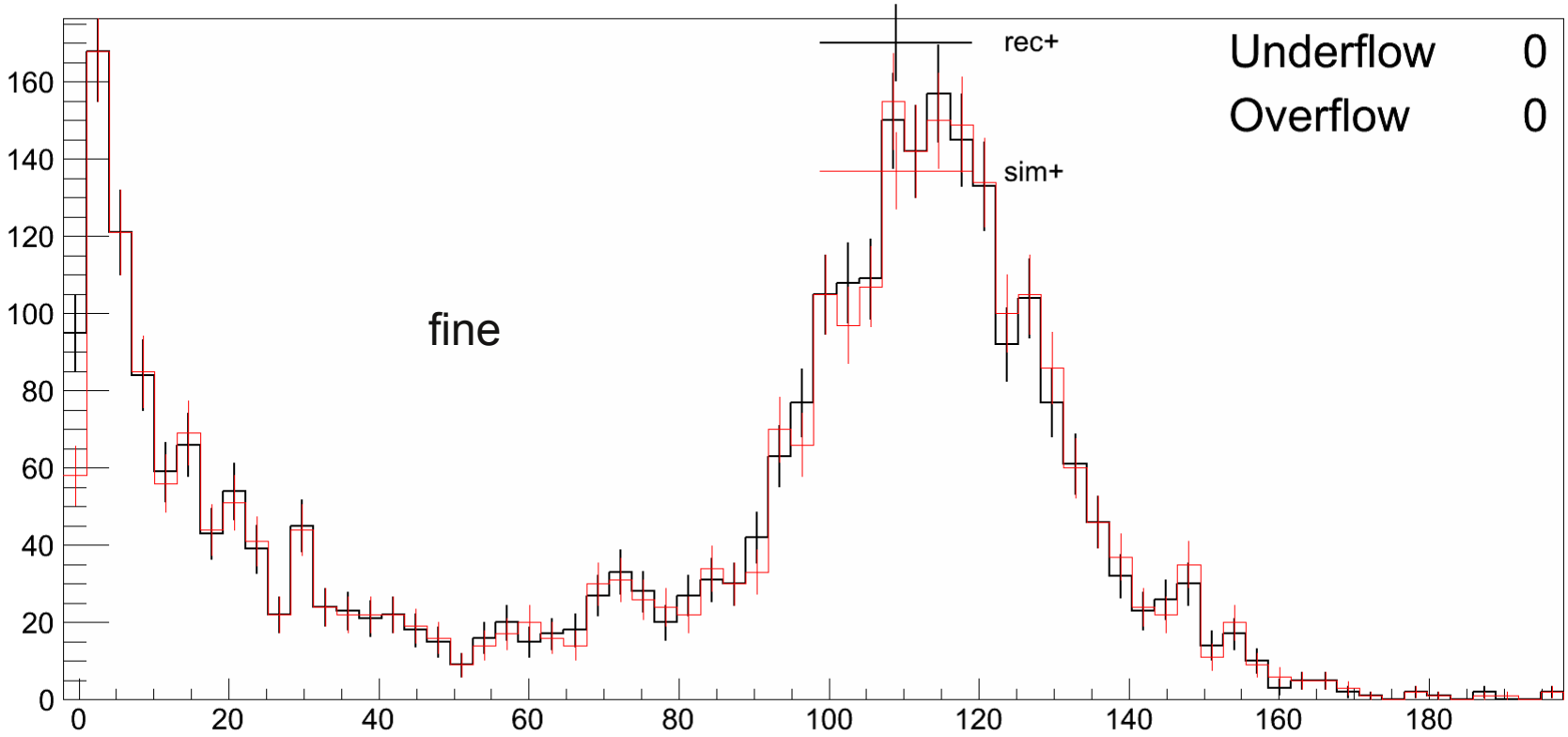
Hit multiplicity after threshold



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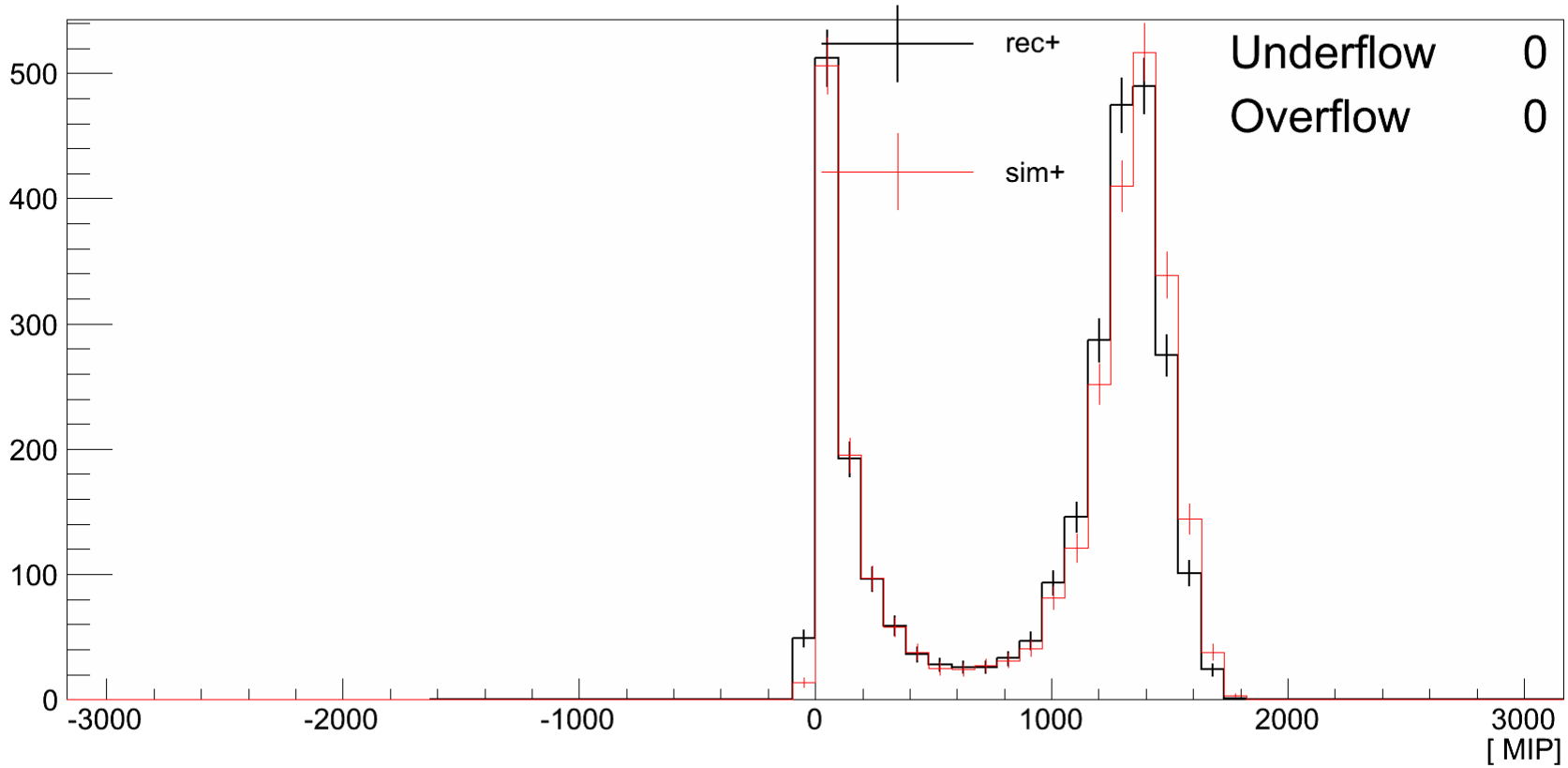
Event energy

Good agreement



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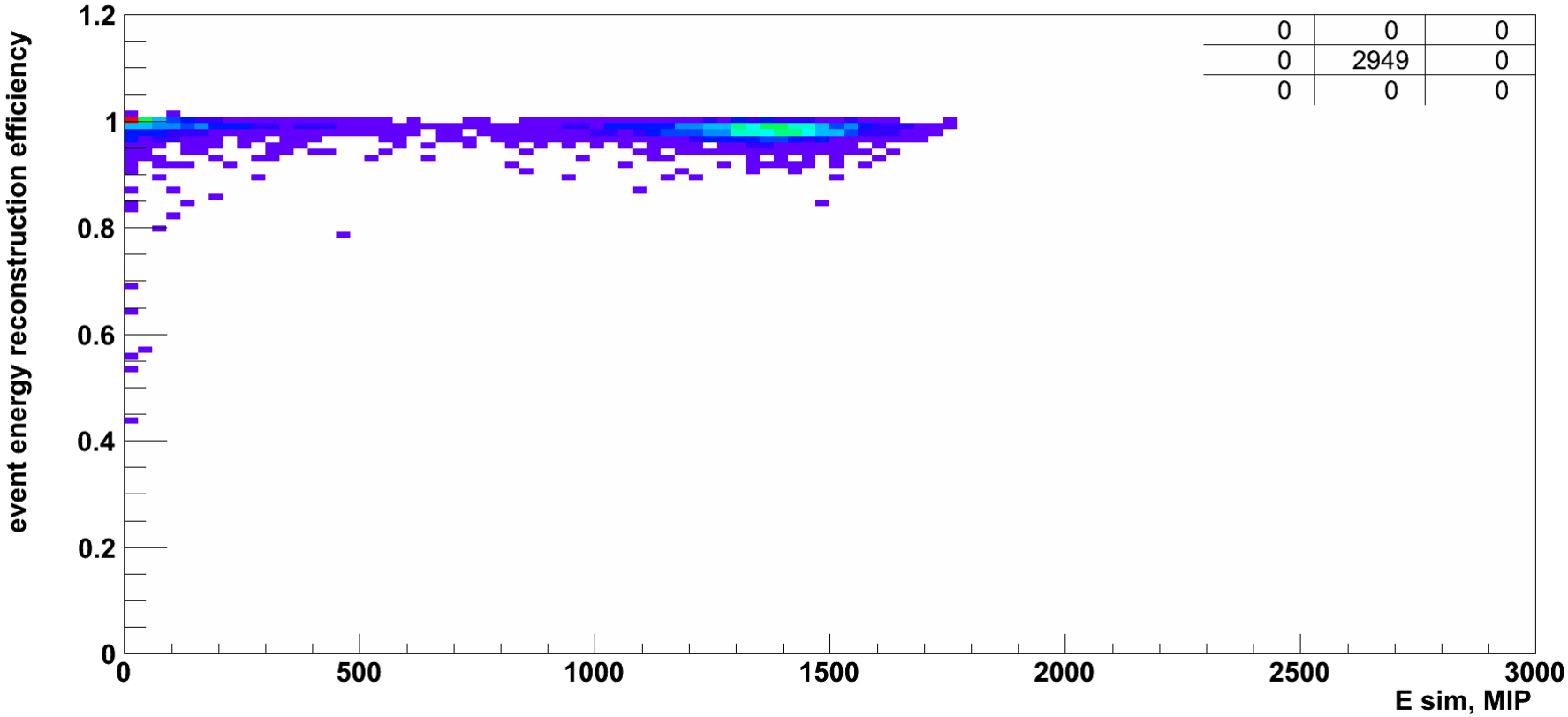
Event energy efficiency



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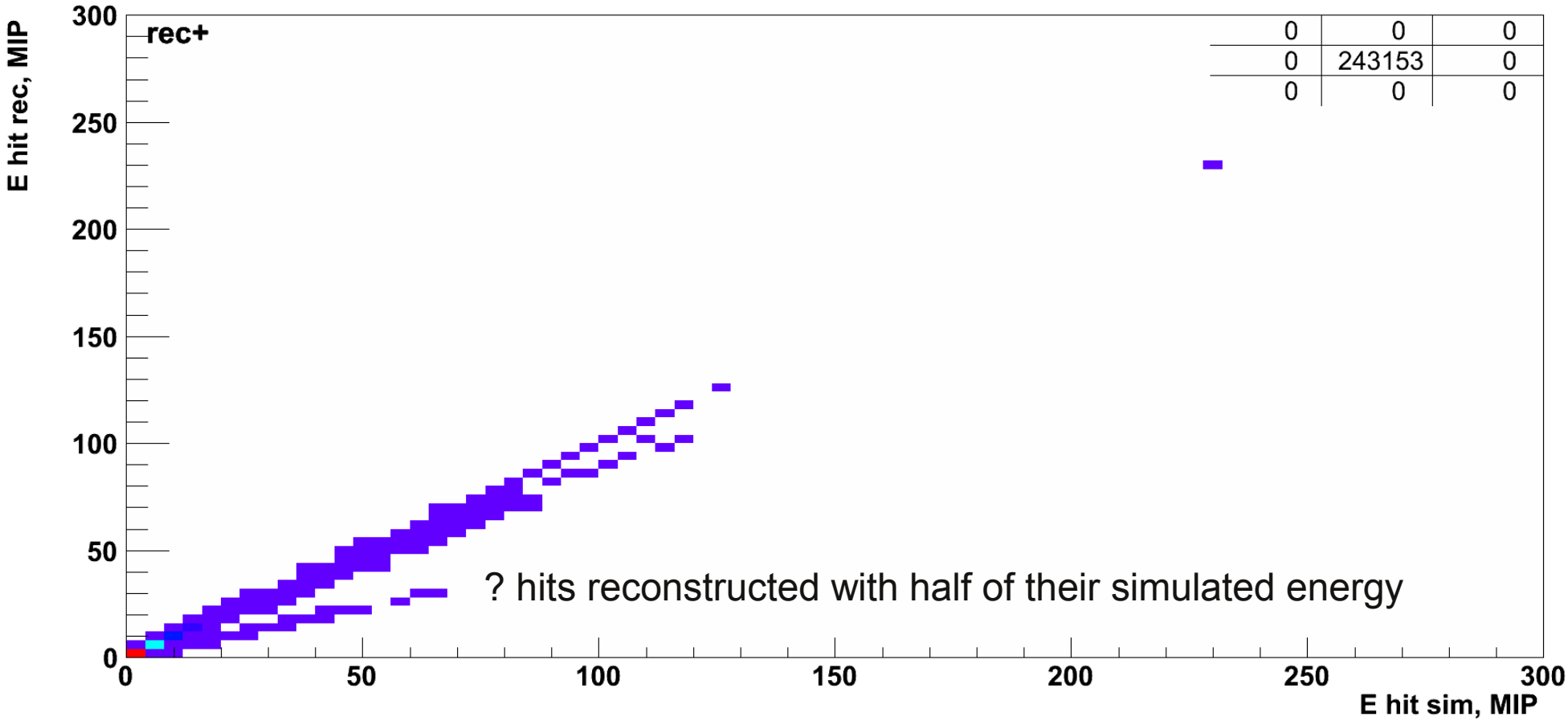
Hit energy



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Conclusions

- Noise is measured and stored in data base
- Now the real digitization is the default option in the trunk version
- Some features of reconstruction not understood