

Luminosity simulation with Guinea-Pig(++)

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HALHF Task Force meeting — 06/07/2023

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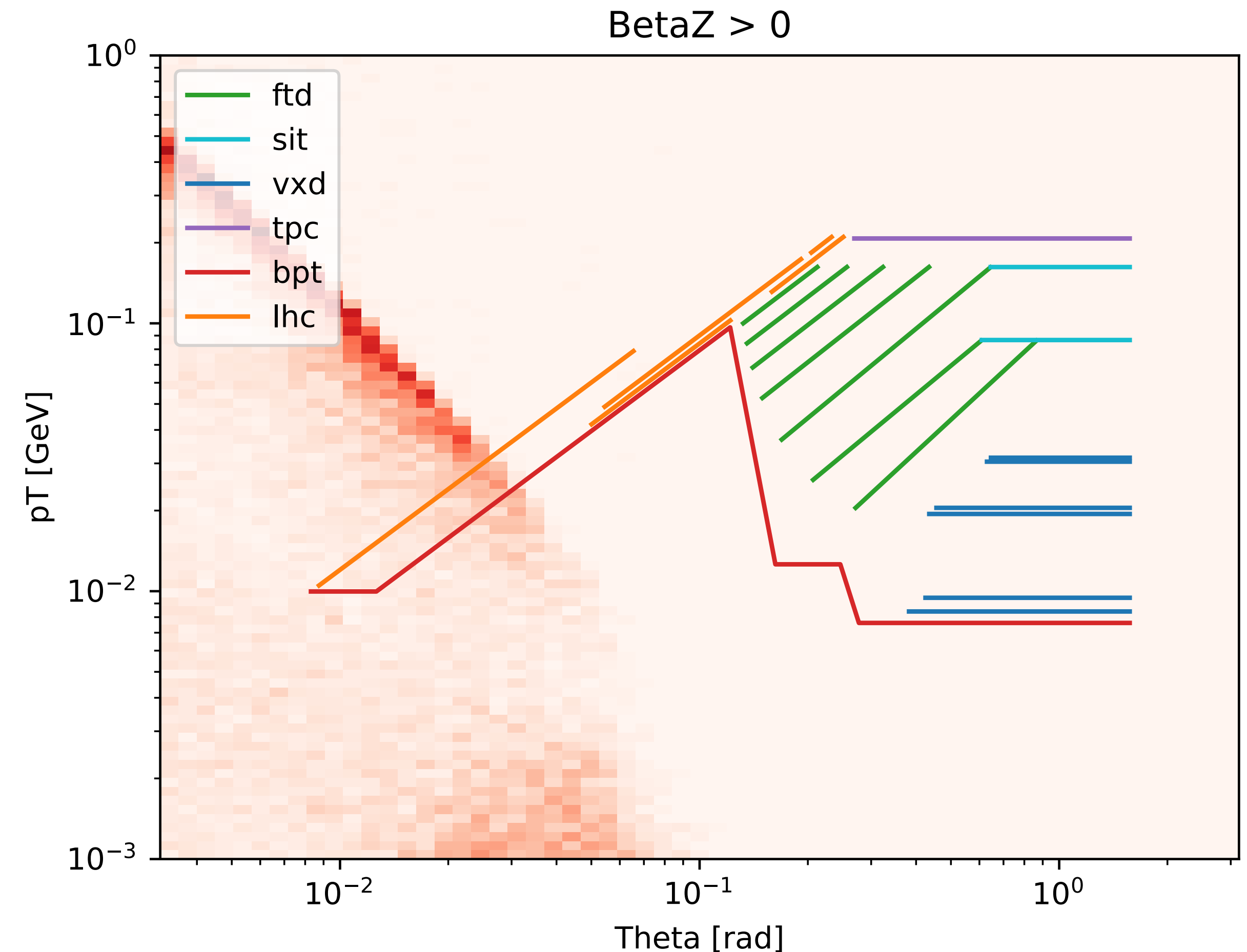
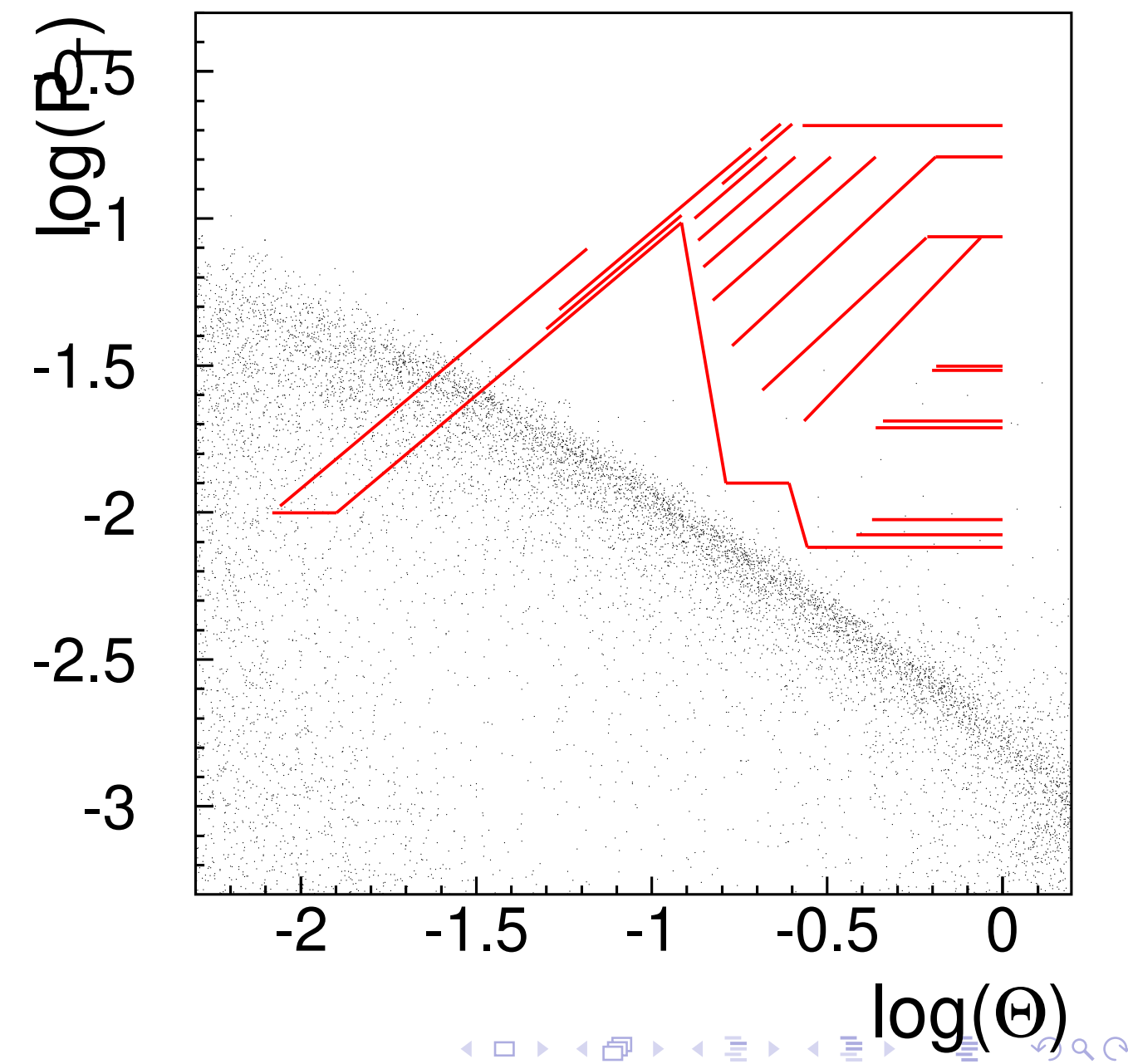


Trying to reproduce the pT/theta plot

Page 5 of Mikael presentation on 27.06.2023

Pairs in HALHF with asymmetric E and symmetric bunch-charge, $\sigma_z = 300\mu$

- Lumi: 0.76. 48k pairs, w/ 185 TeV
- Power: ILC $\times$ 2.13
- Backward
- Forward
- Symmetric energy: Lumi: 1.06. 64k pairs, w/ 48 TeV
- Power: ILC
- ILC250 SetA
- Lumi: 1.72. 125k pairs, w/ 111 TeV
- Power: ILC



- Got the code from Mikael, detector lines look ok.
- Adapted Mikael code (Fortran + PAW) to python.
- Still something fishy with the pairs data, under investigation.