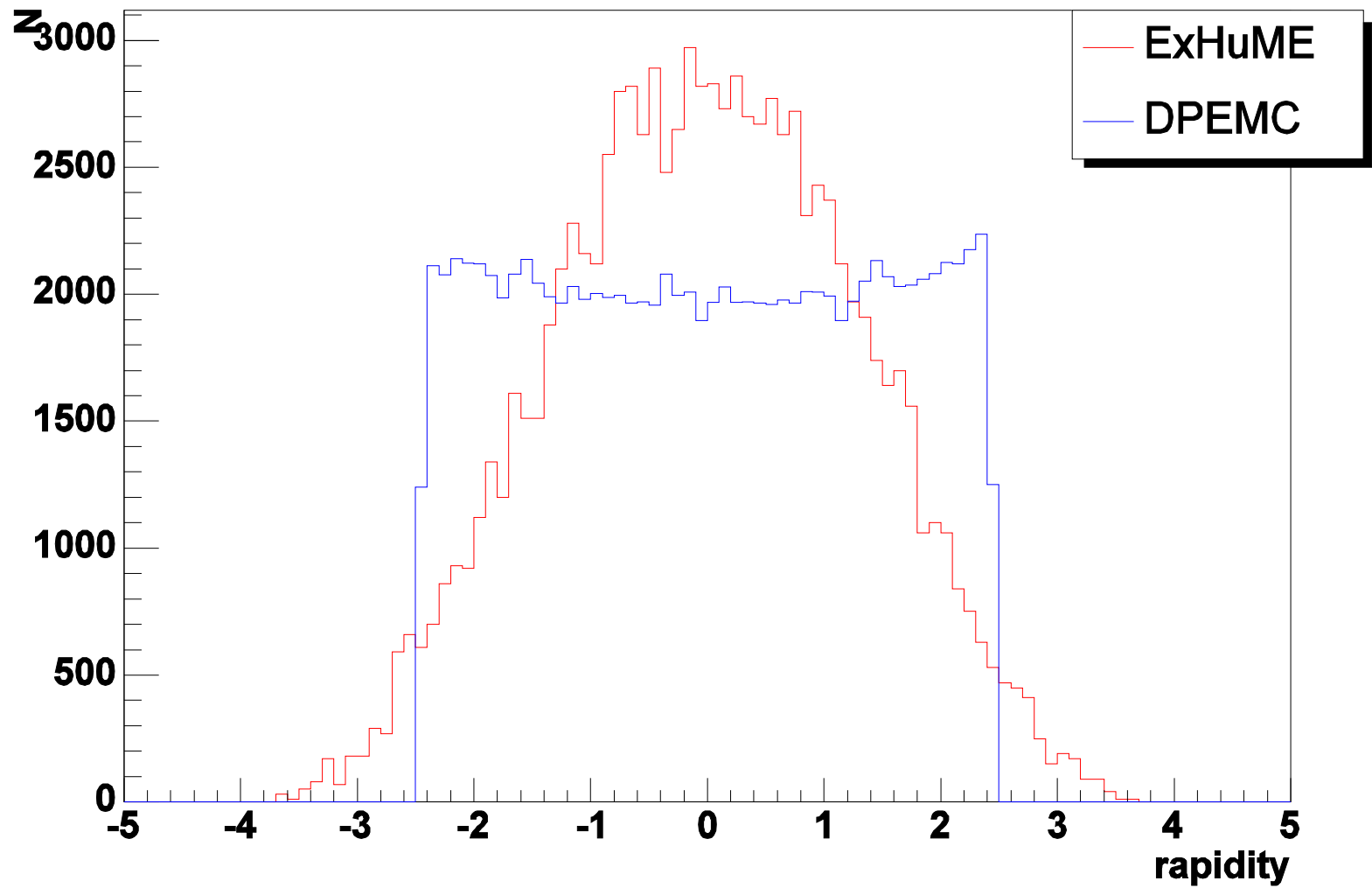


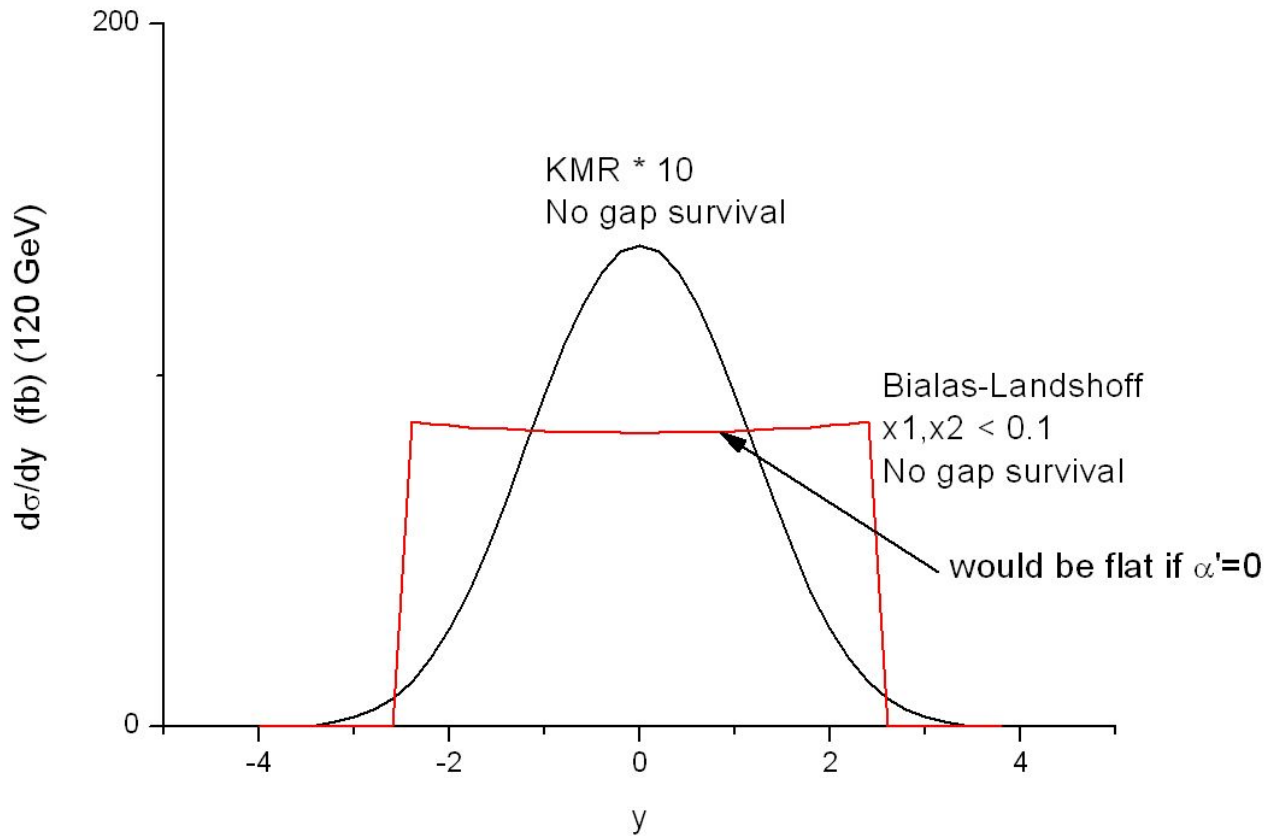
Some numerical studies into exclusive Higgs production

- The following plots include a direct comparison between the ExHuME (Durham model) and DPEMC (Saclay model based upon the original Bialas-Landshoff calculation) Monte Carlo simulations for exclusive Standard Model Higgs production
- Unless otherwise stated results are for a Higgs mass of 120 GeV
- In addition to the Monte Carlo distributions, I present some numerical results derived independently. My results agree with those of ExHuME in shape and normalization, and with the shape of DPEMC (I have not compared normalization).
- Some studies into the sensitivity to infrared physics and to the uncertainties in parton density functions are performed.

Rapidity



Thanks to Andy Pilkington (ExHuME) and Maarten Boonekamp (DPEMC)

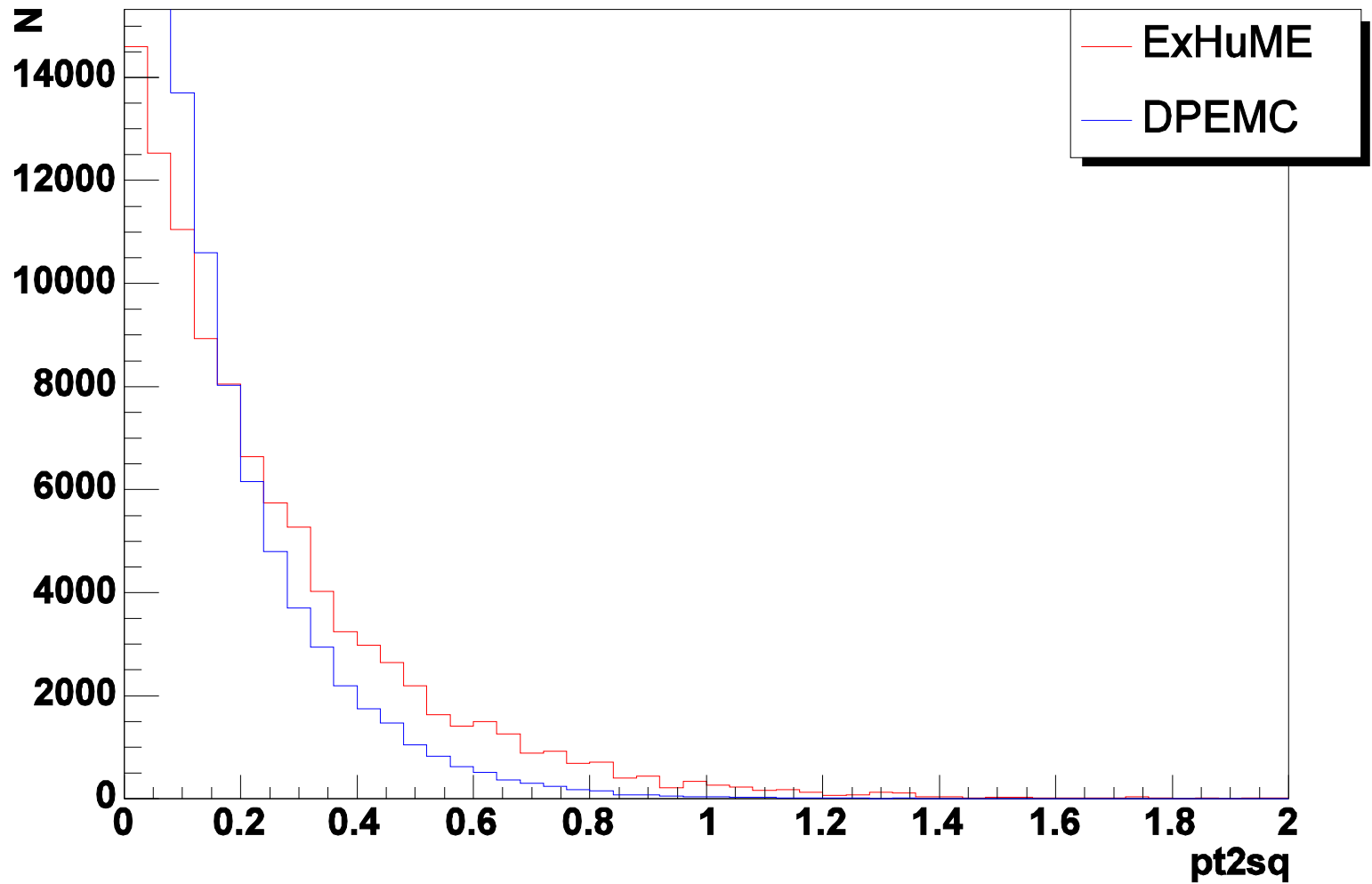


Integrating over y and including gap survival of 3%:

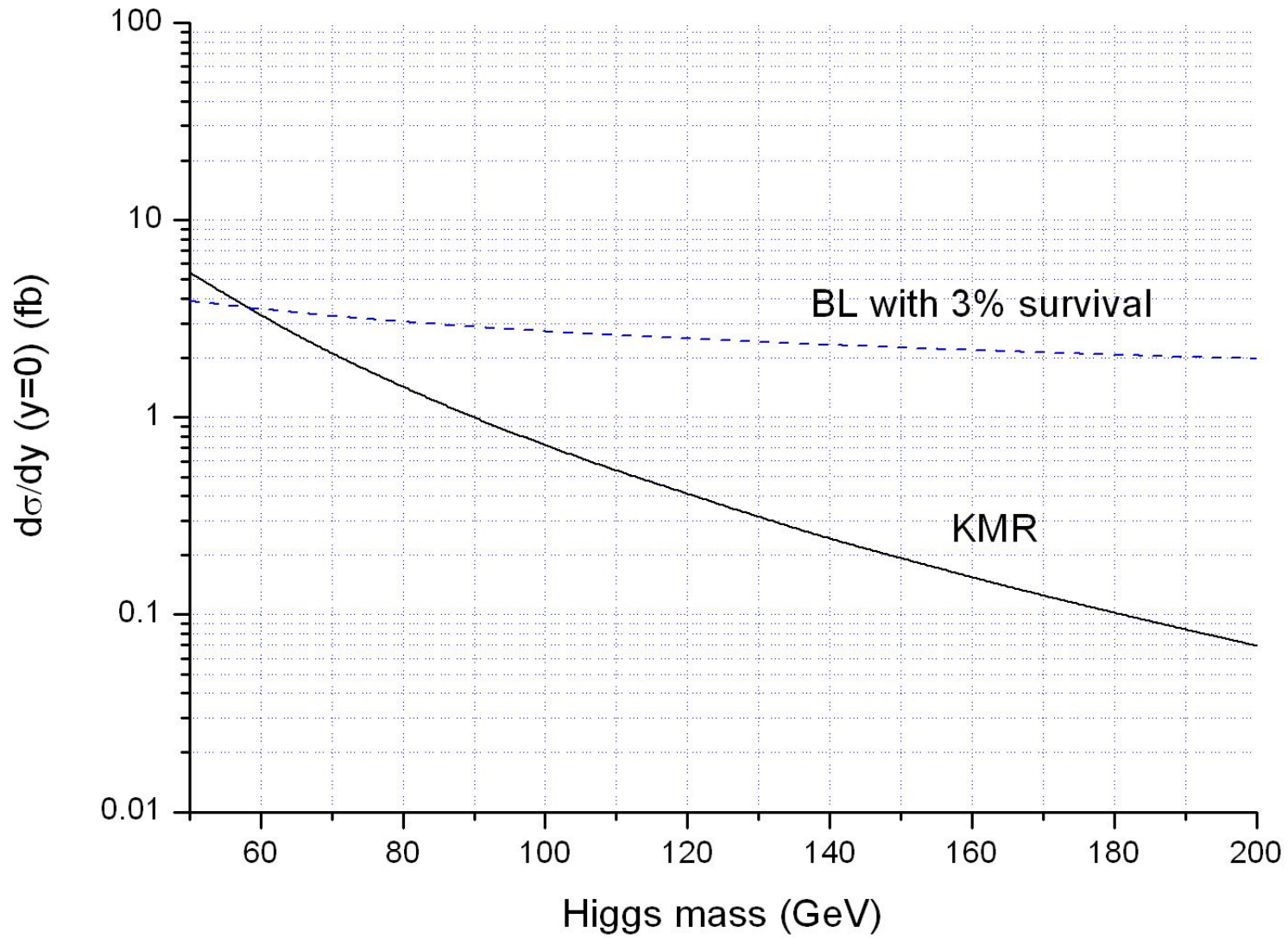
KMR: $\sigma = 2 \text{ fb}$

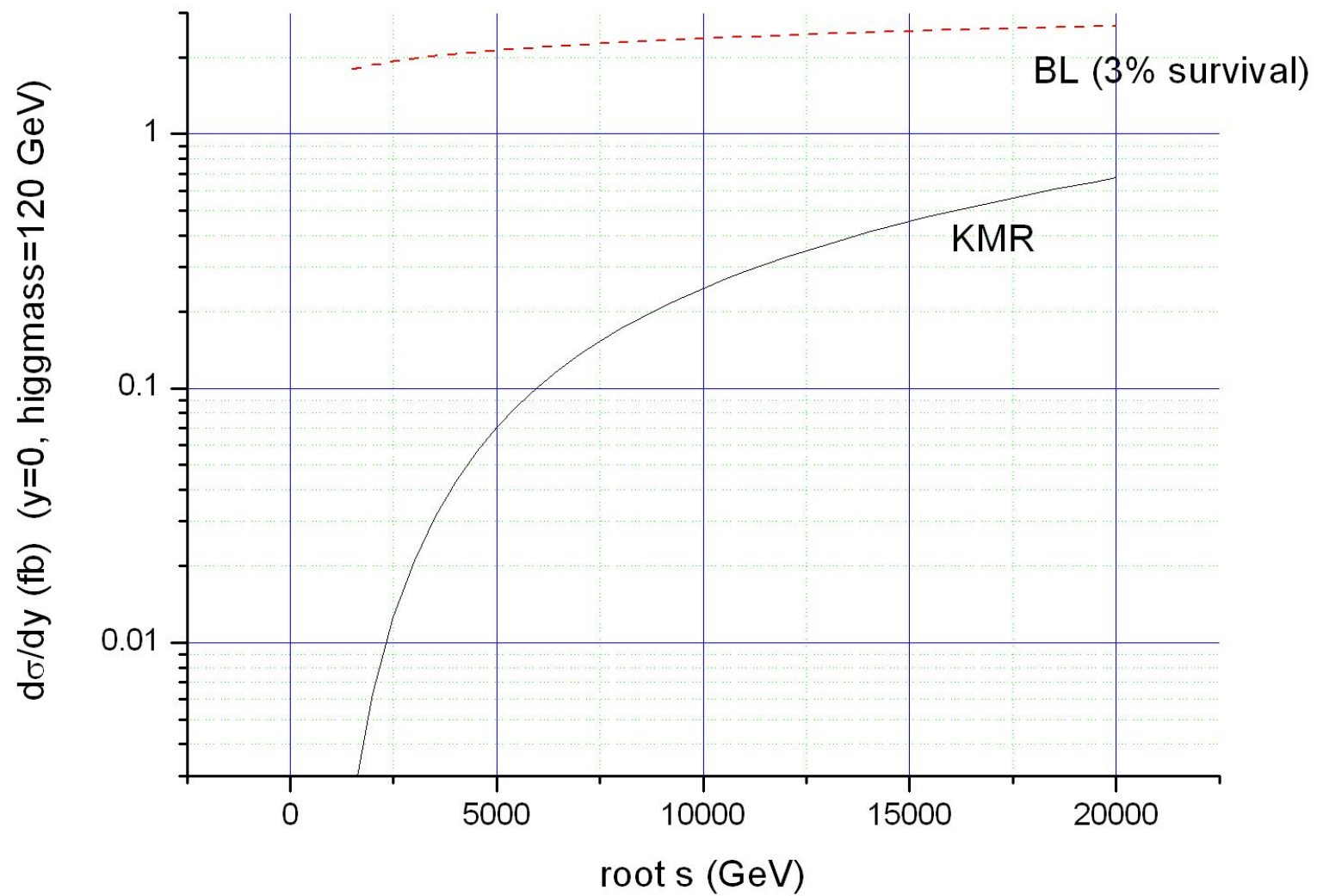
BL: $\sigma = 10 \text{ fb}$

pt1



Difference is entirely because $\alpha' = 0.25 \text{ GeV}^{-2}$
in Bialas-Landshoff





x1

