

Analysis update: April 19, 2022

- SIMC simulation:

- 2.7 GeV PionLT.

- $Q^2 = 0.38 \text{ GeV}^2$, **left1**, **left2** and **center** settings ($Y_{\text{simc}} * 0.8$). **Done**

- $Q^2 = 0.42 \text{ GeV}^2$, **left1**, **left2** and **center** settings ($Y_{\text{simc}} * 0.8$). **Done**

- 3.6 GeV PionLT

- $Q^2 = 0.38 \text{ GeV}^2$, **left1**, **left2**, **right1**, **right2** and **center** settings. **Done**

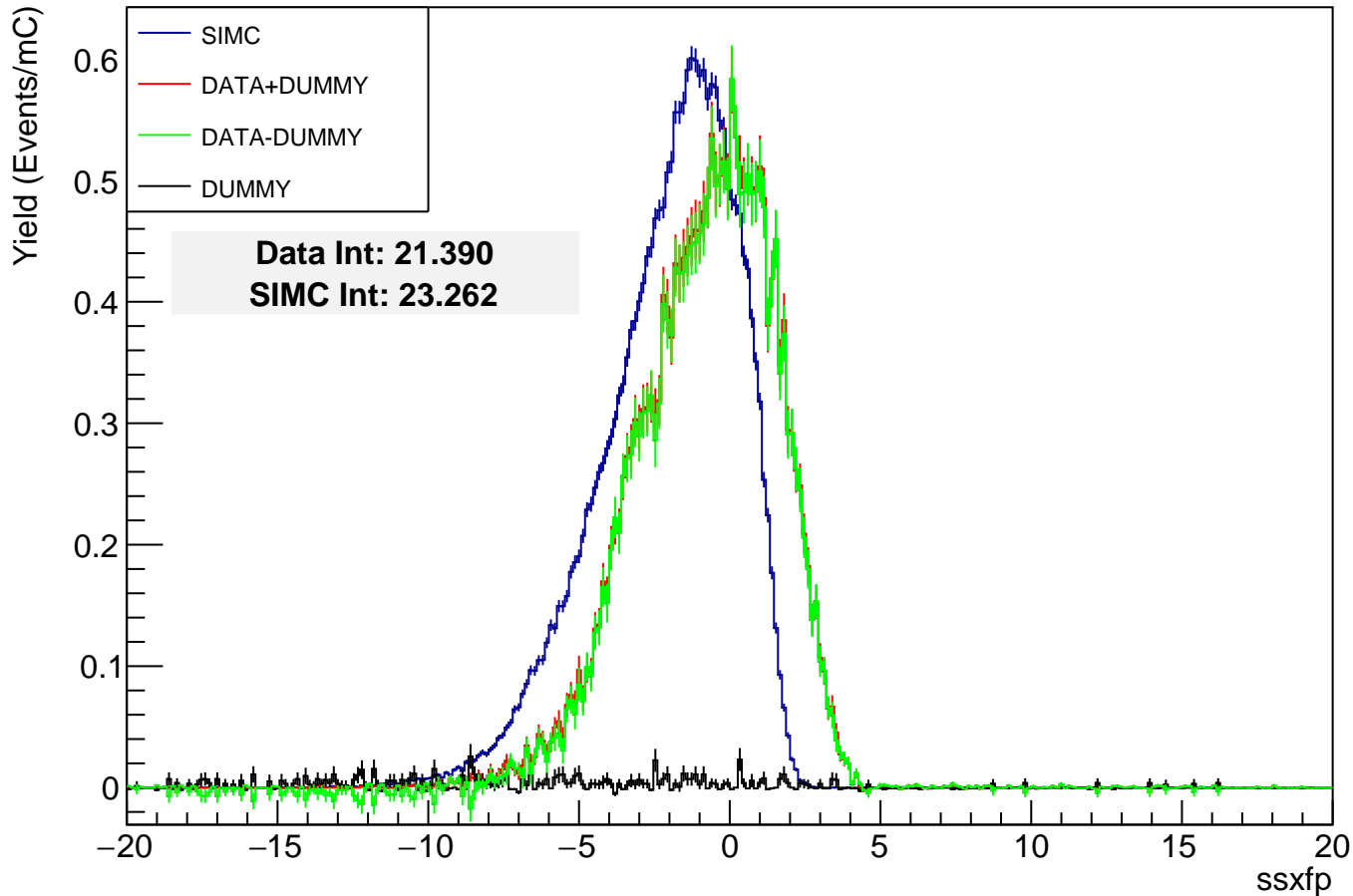
- $Q^2 = 0.42 \text{ GeV}^2$, **left1**, **left2**, **right1**, **right2** and **center** settings. **Not**

- 4.5 GeV PionLT

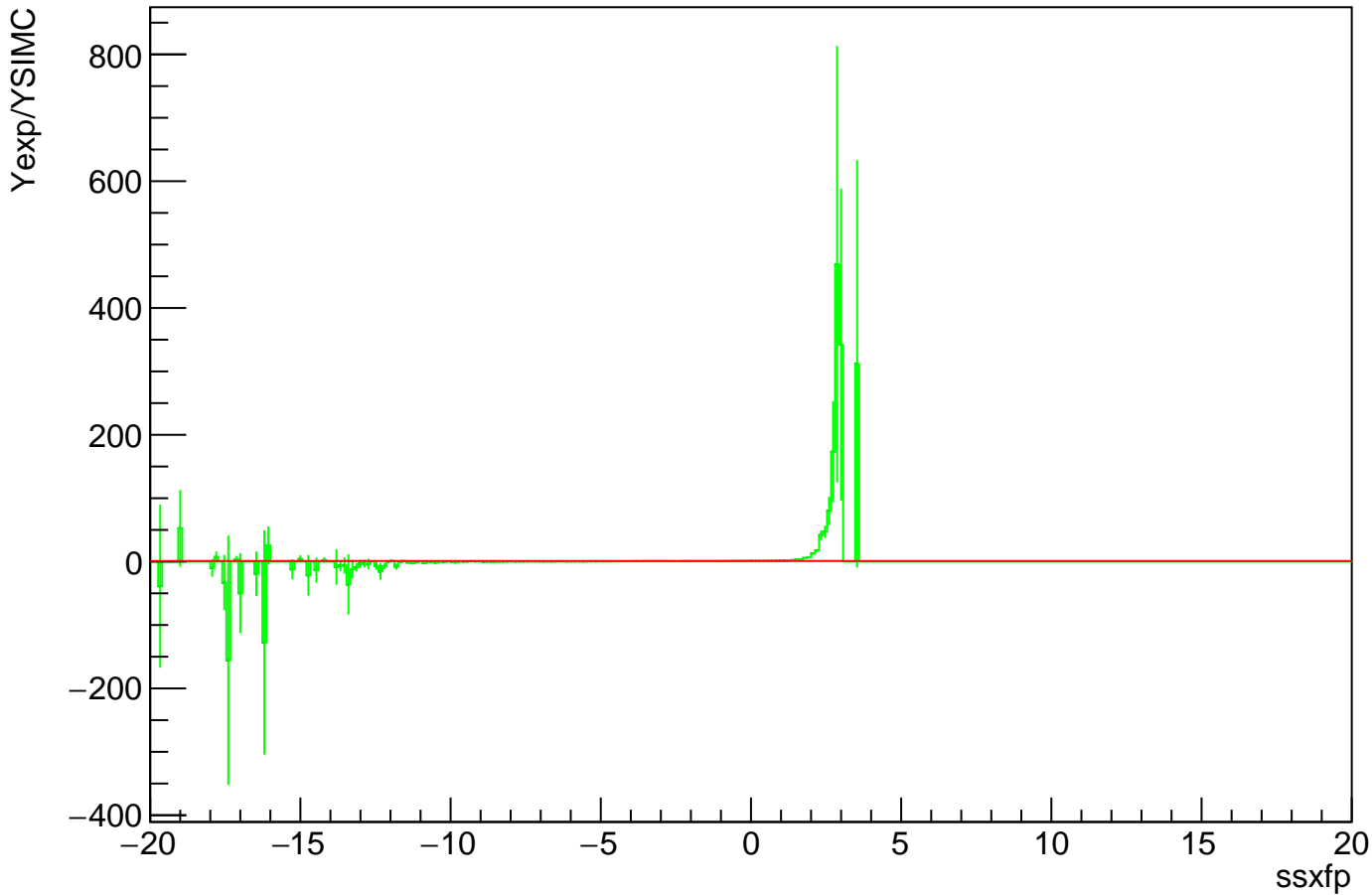
- Not started yet.

- An output pdf file of the **2.7 GeV**, $Q^2 = 0.42 \text{ GeV}^2$ and **left1** setting is attached below.

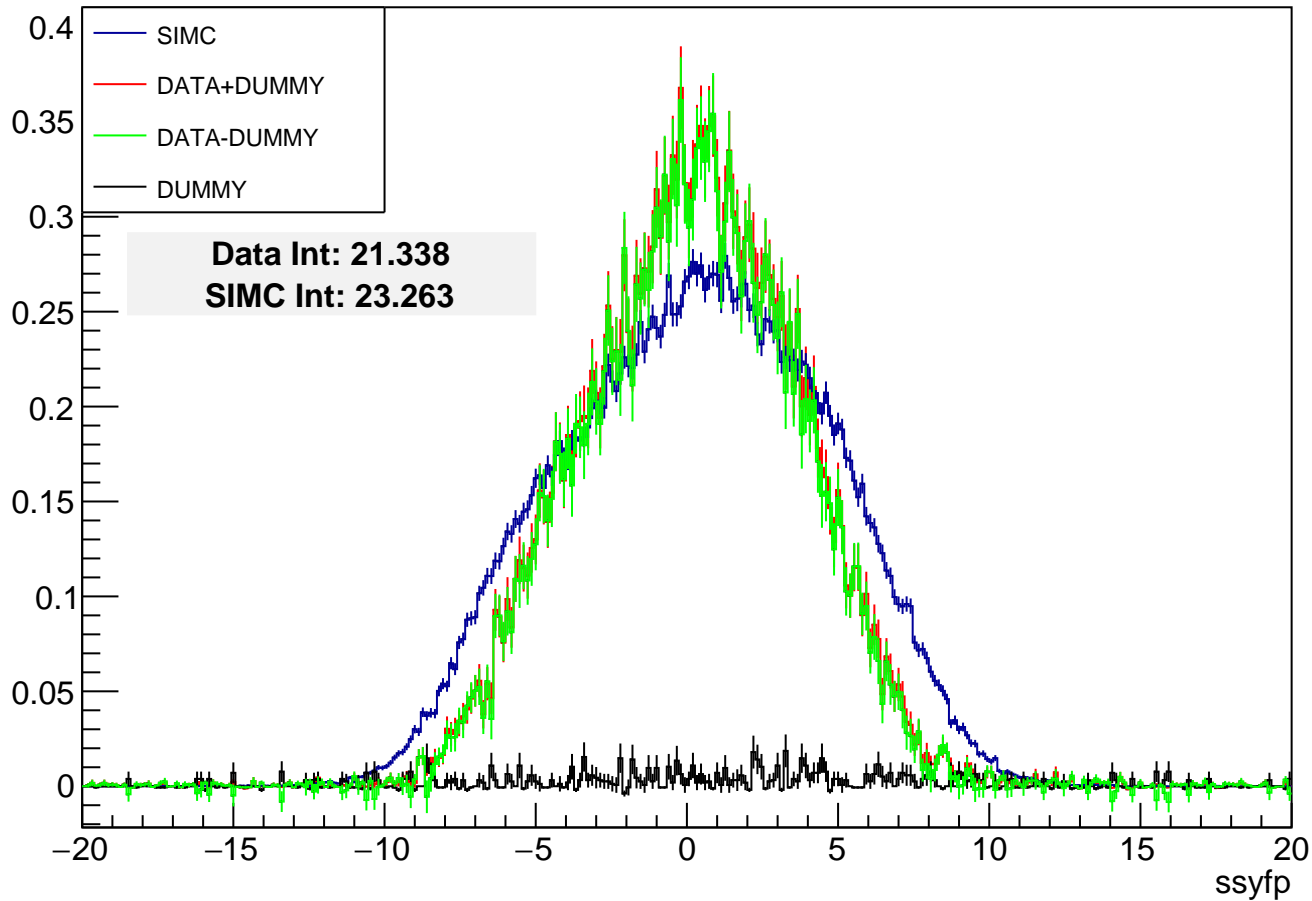
SHMS xfp



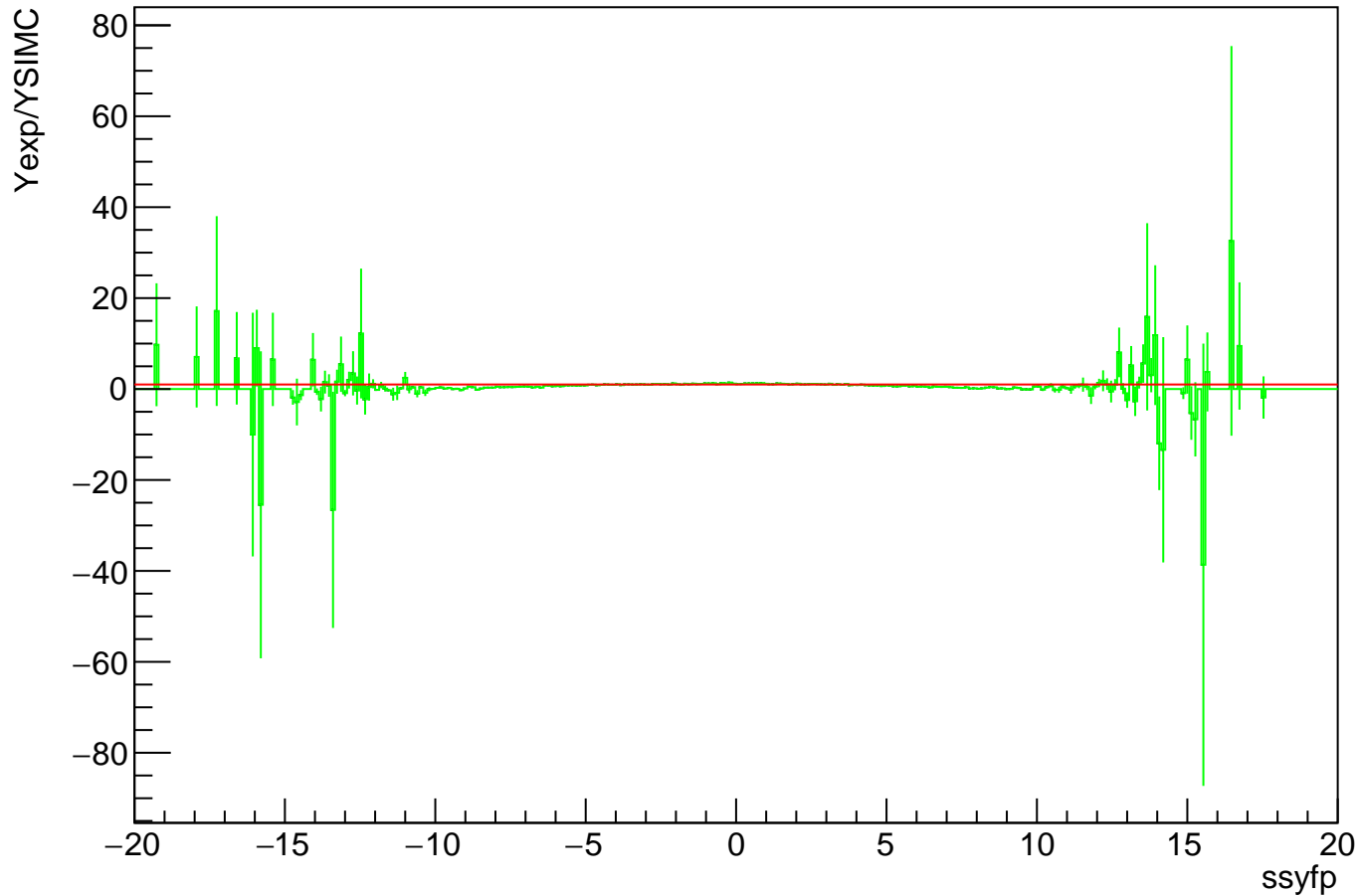
SHMS xfp



SHMS yfp

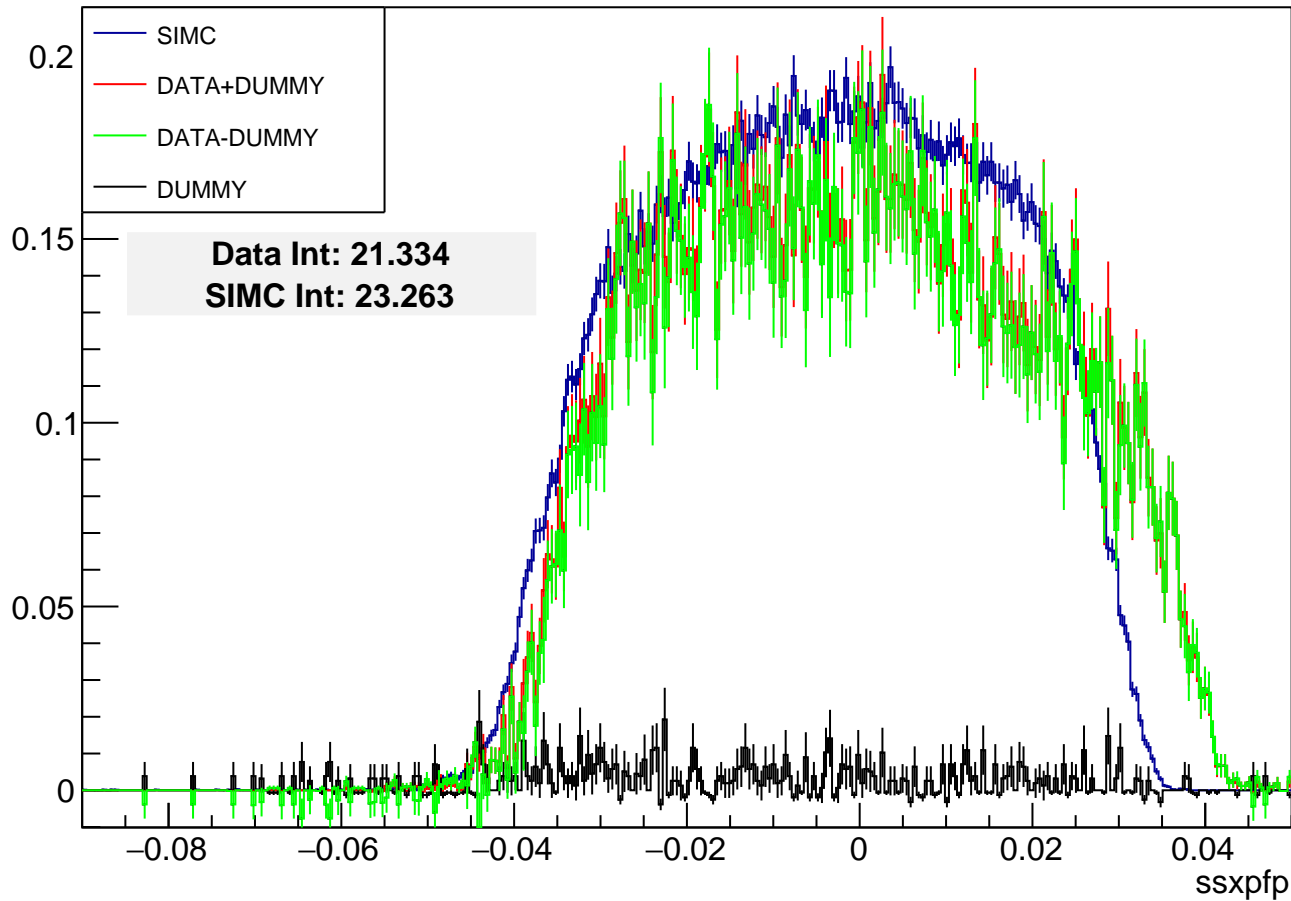


SHMS yfp

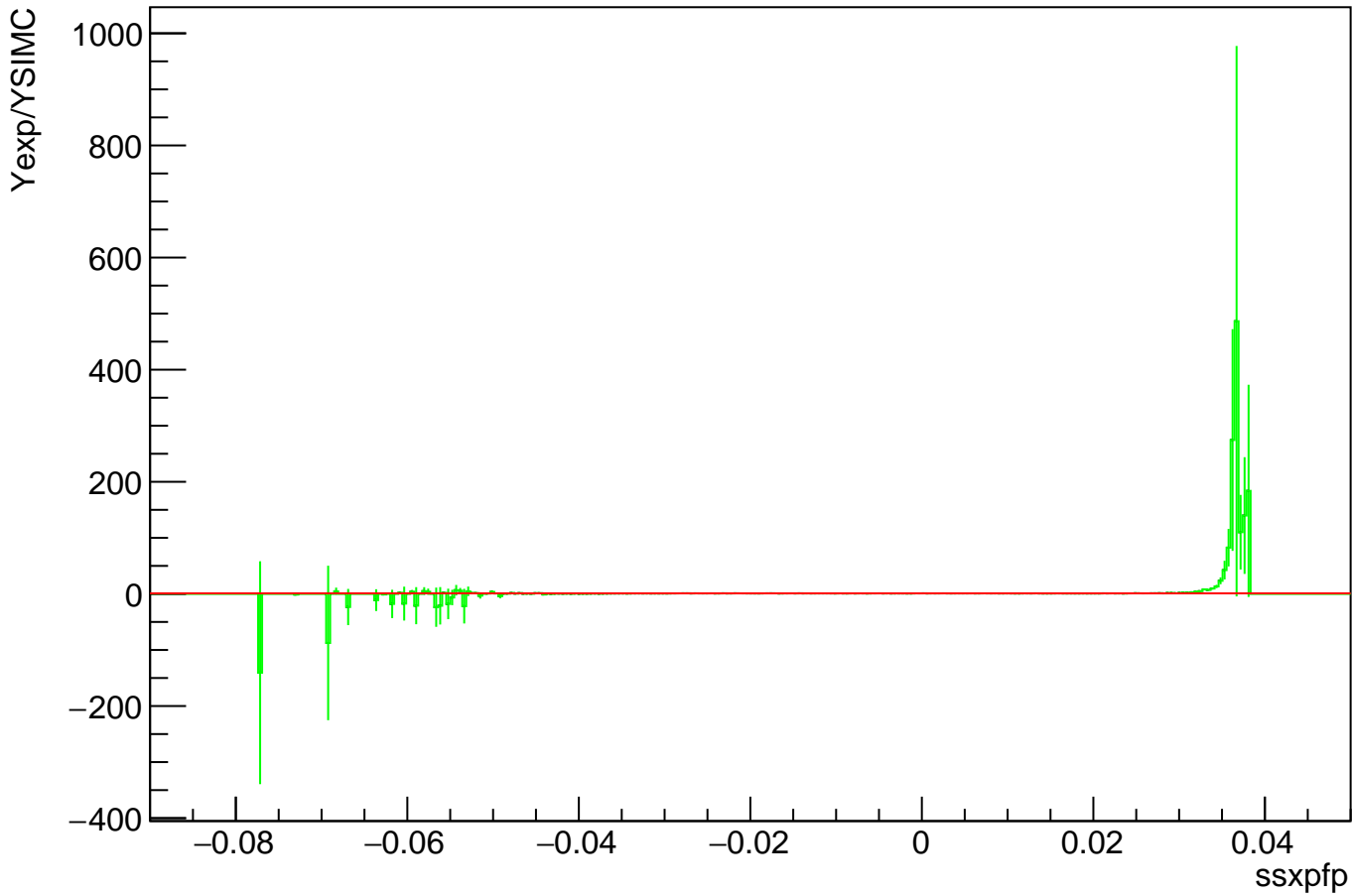


SHMS xfp

Yield (Events/mC)

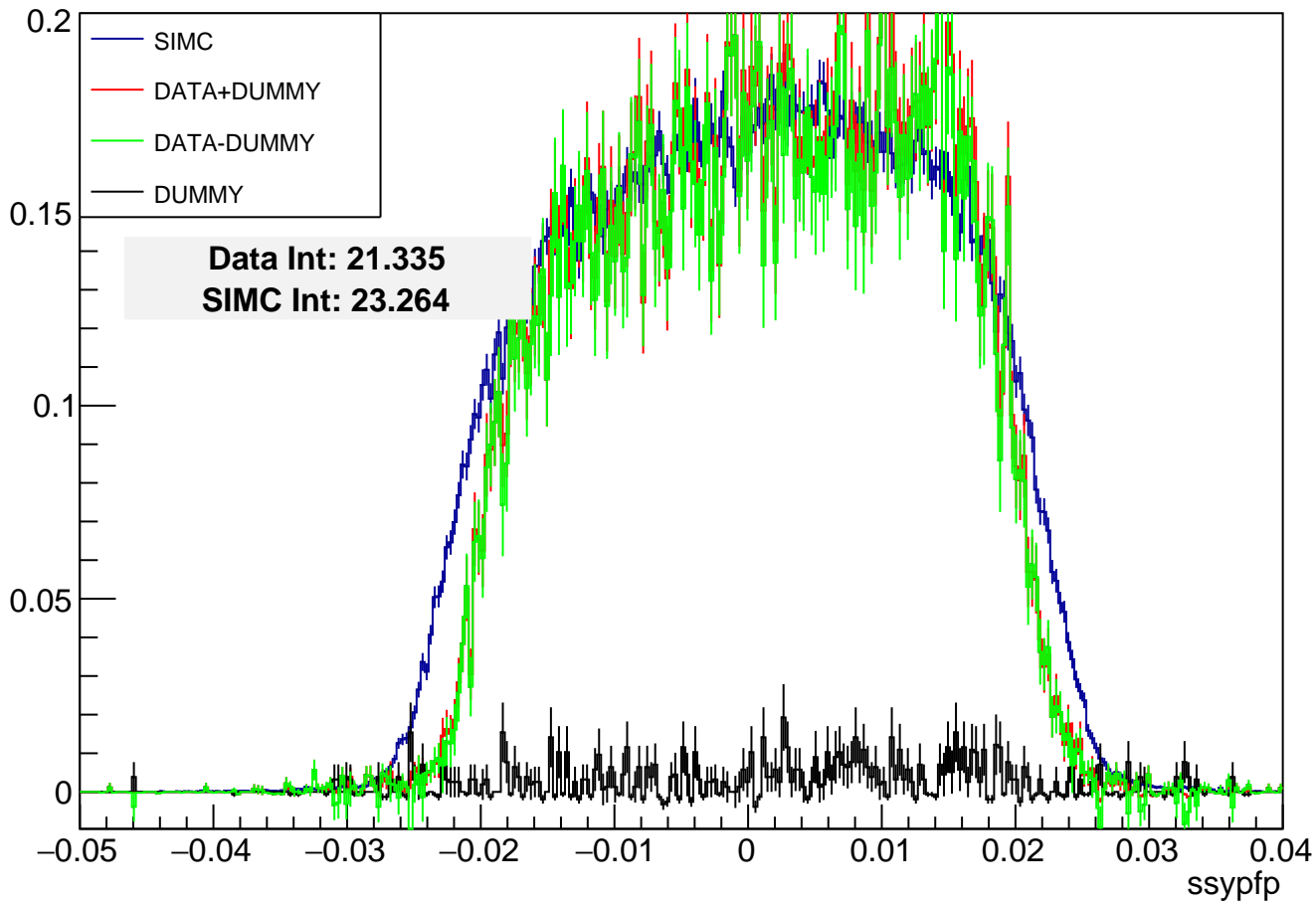


SHMS xfp



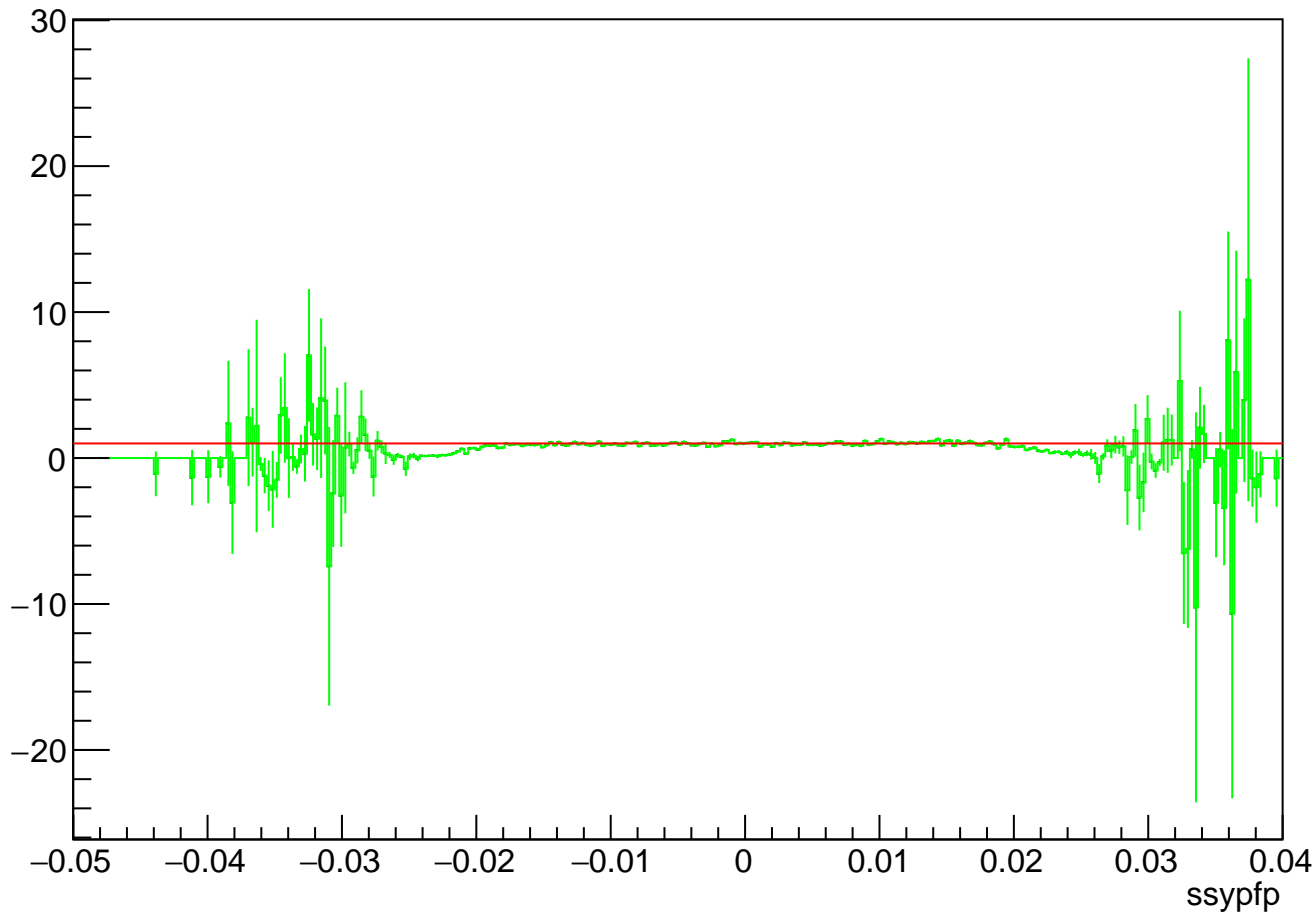
SHMS yfp

Yield (Events/mC)

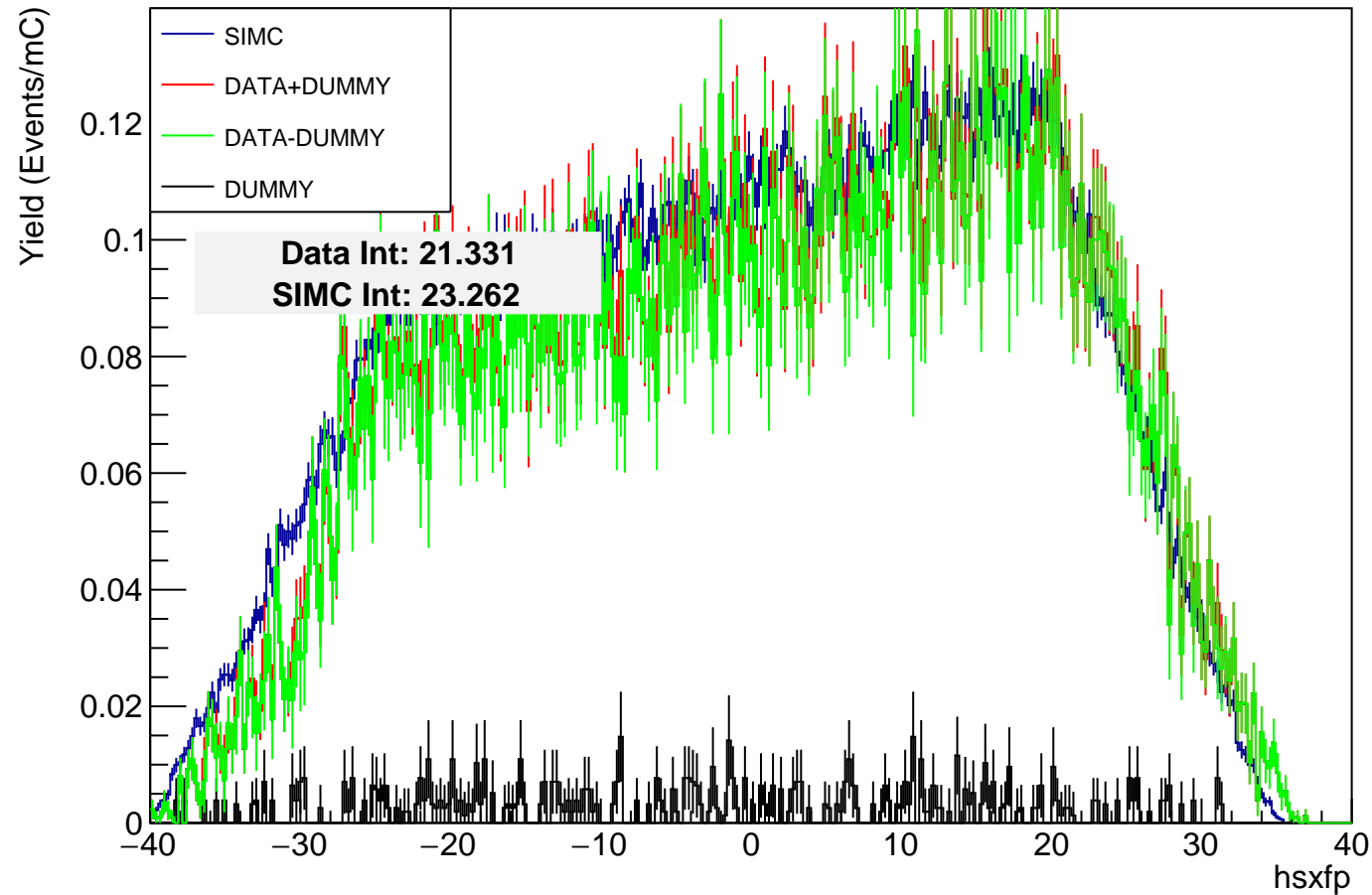


SHMS ypfp

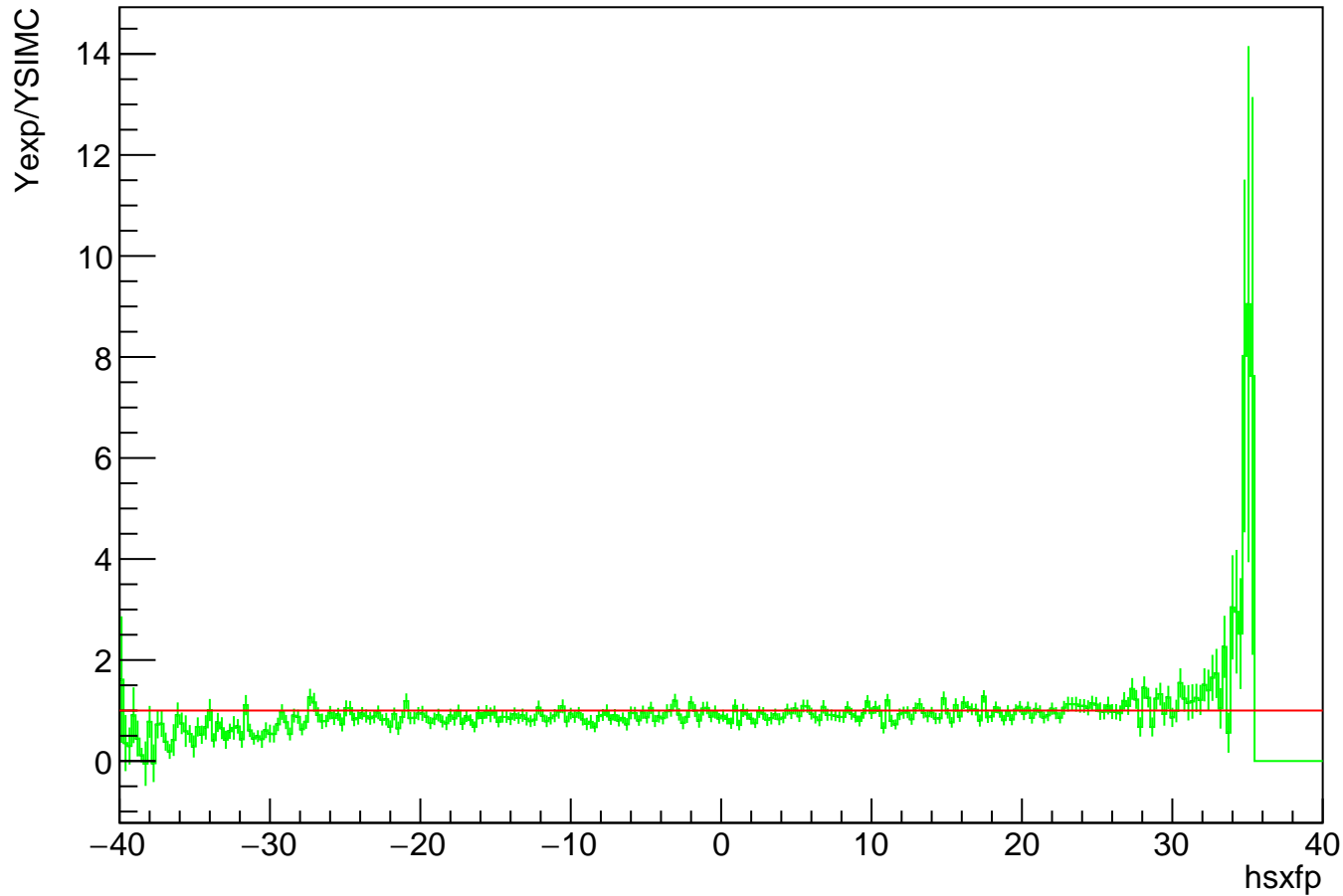
$Y_{\text{exp}}/Y_{\text{SIMC}}$



HMS xfp

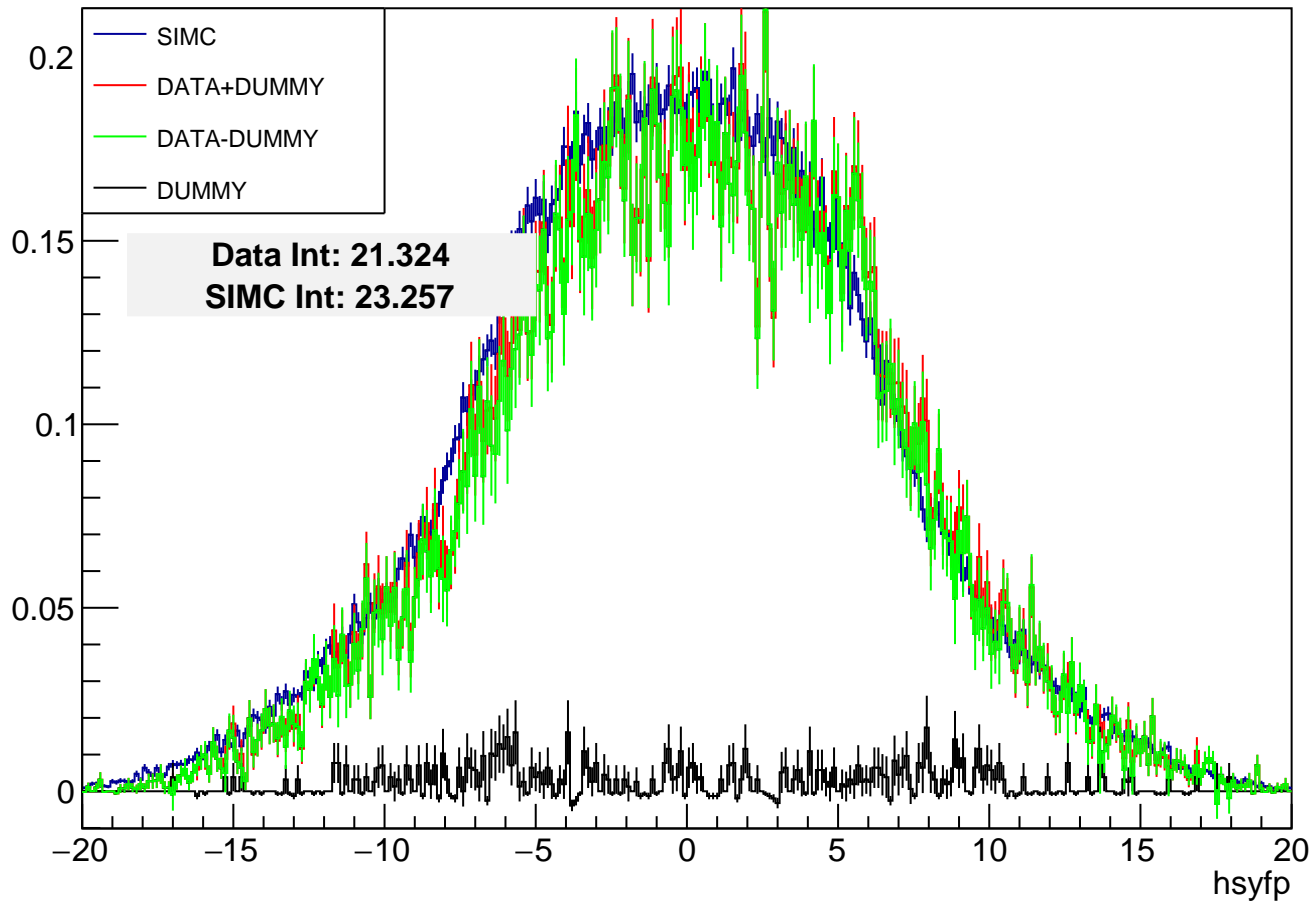


HMS xfp

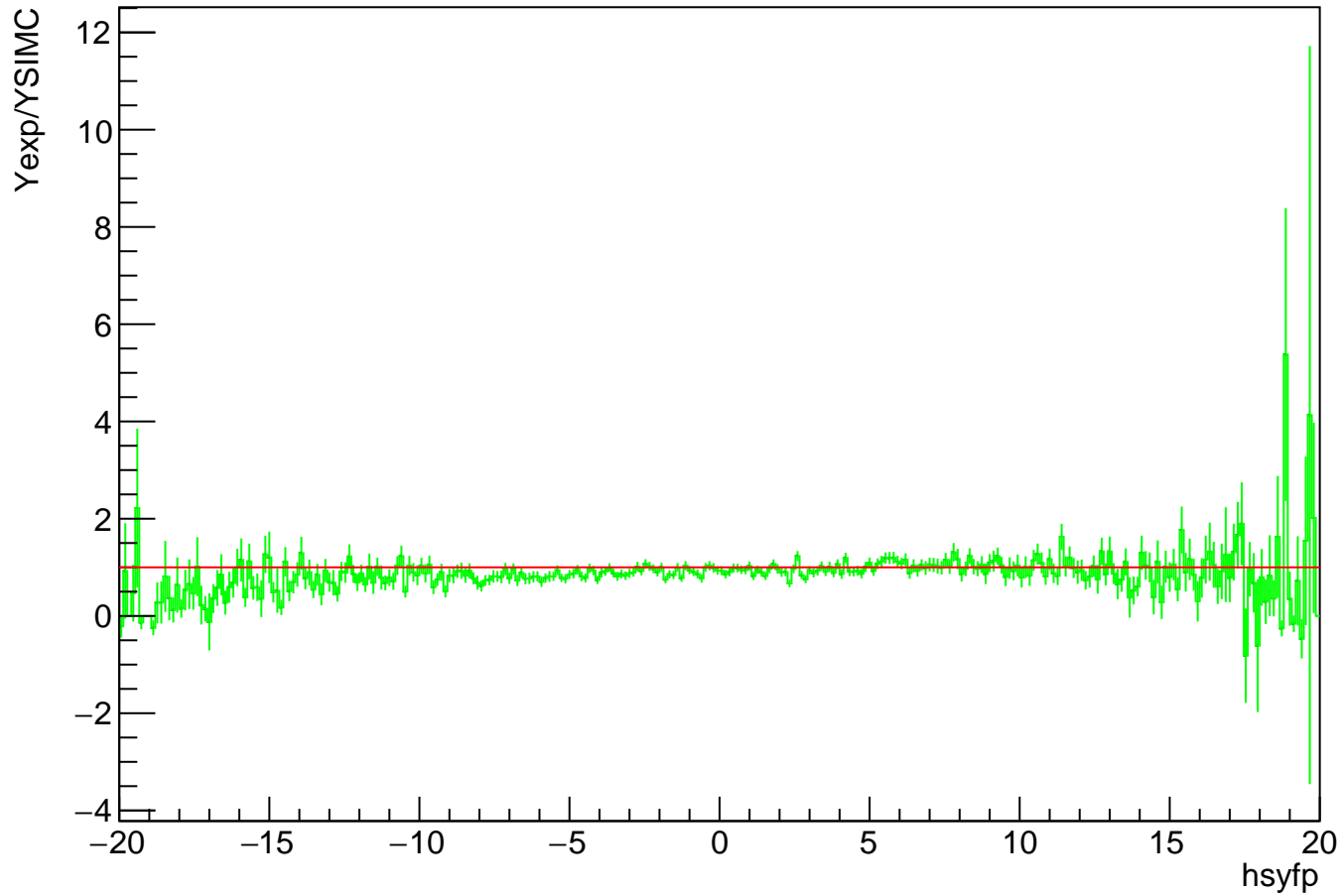


HMS yfp

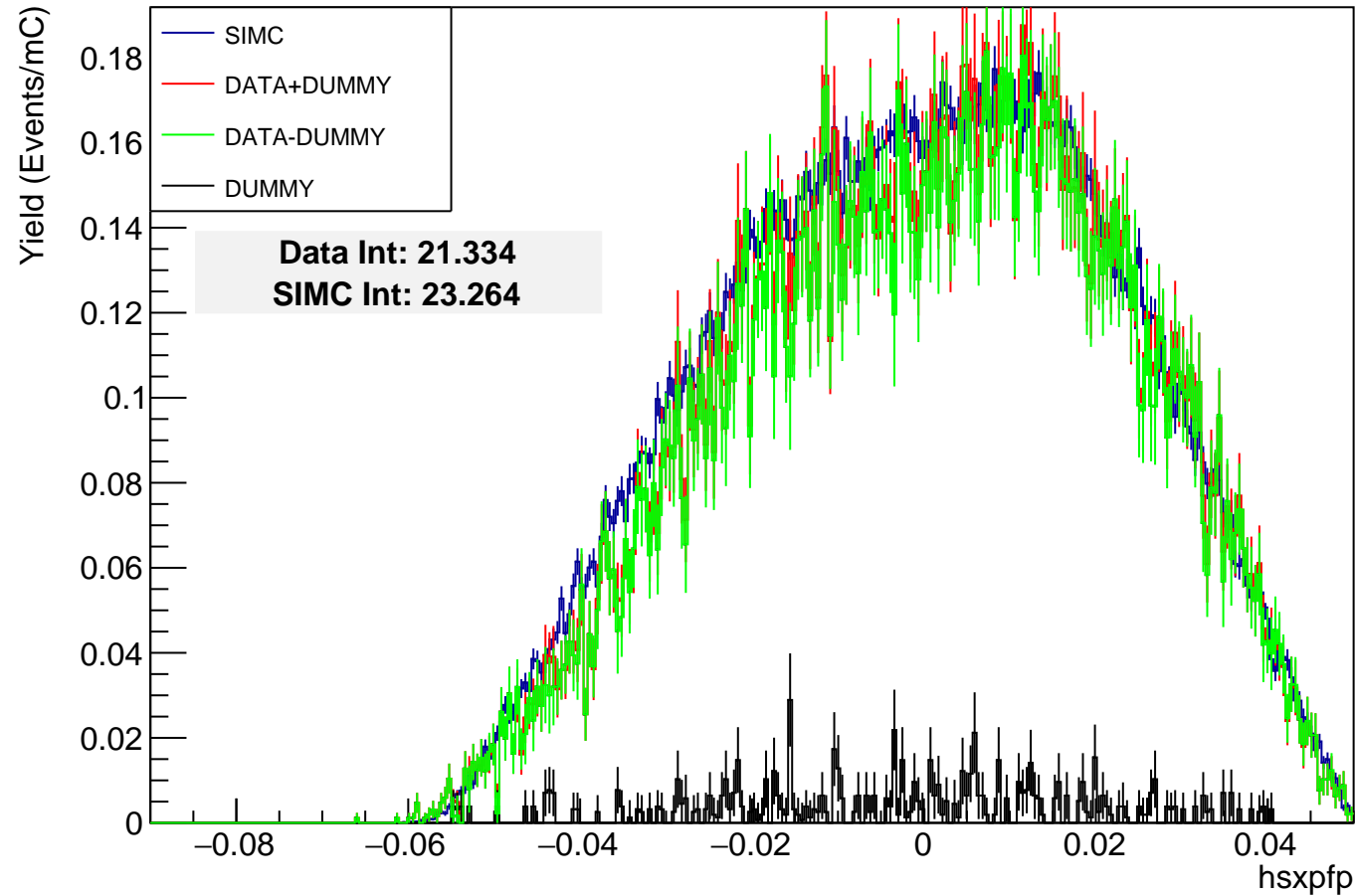
Yield (Events/mC)



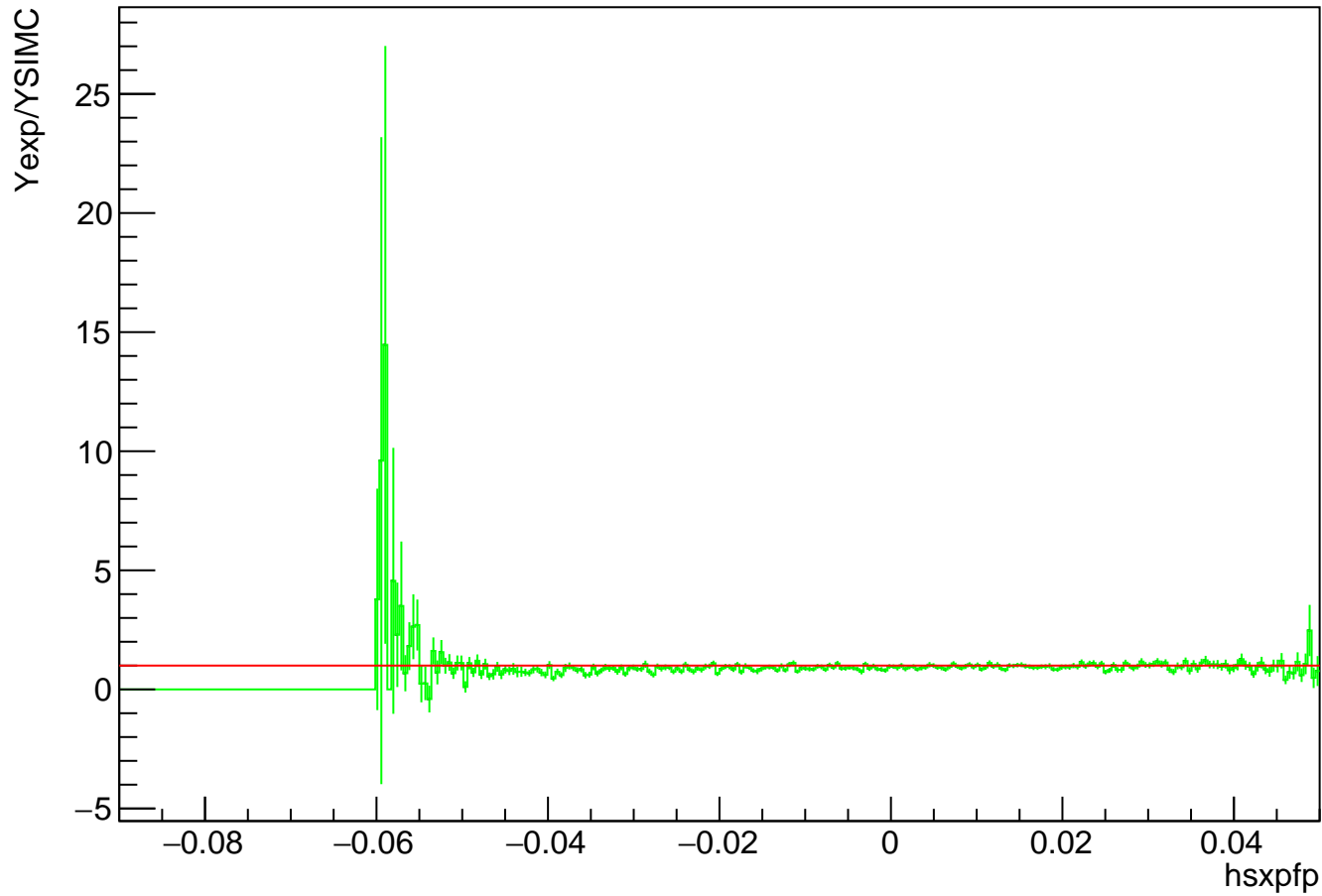
HMS yfp



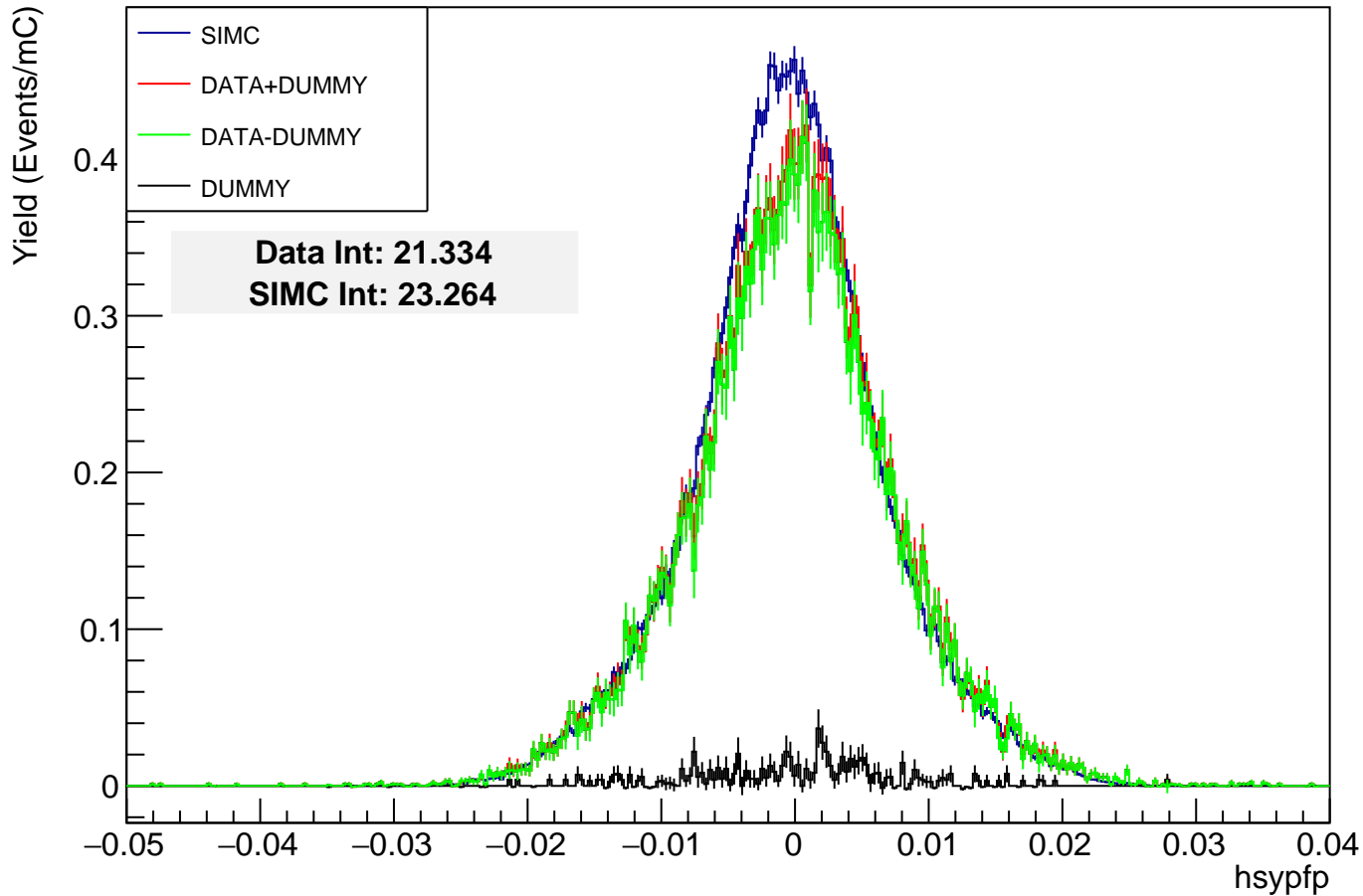
HMS xfp



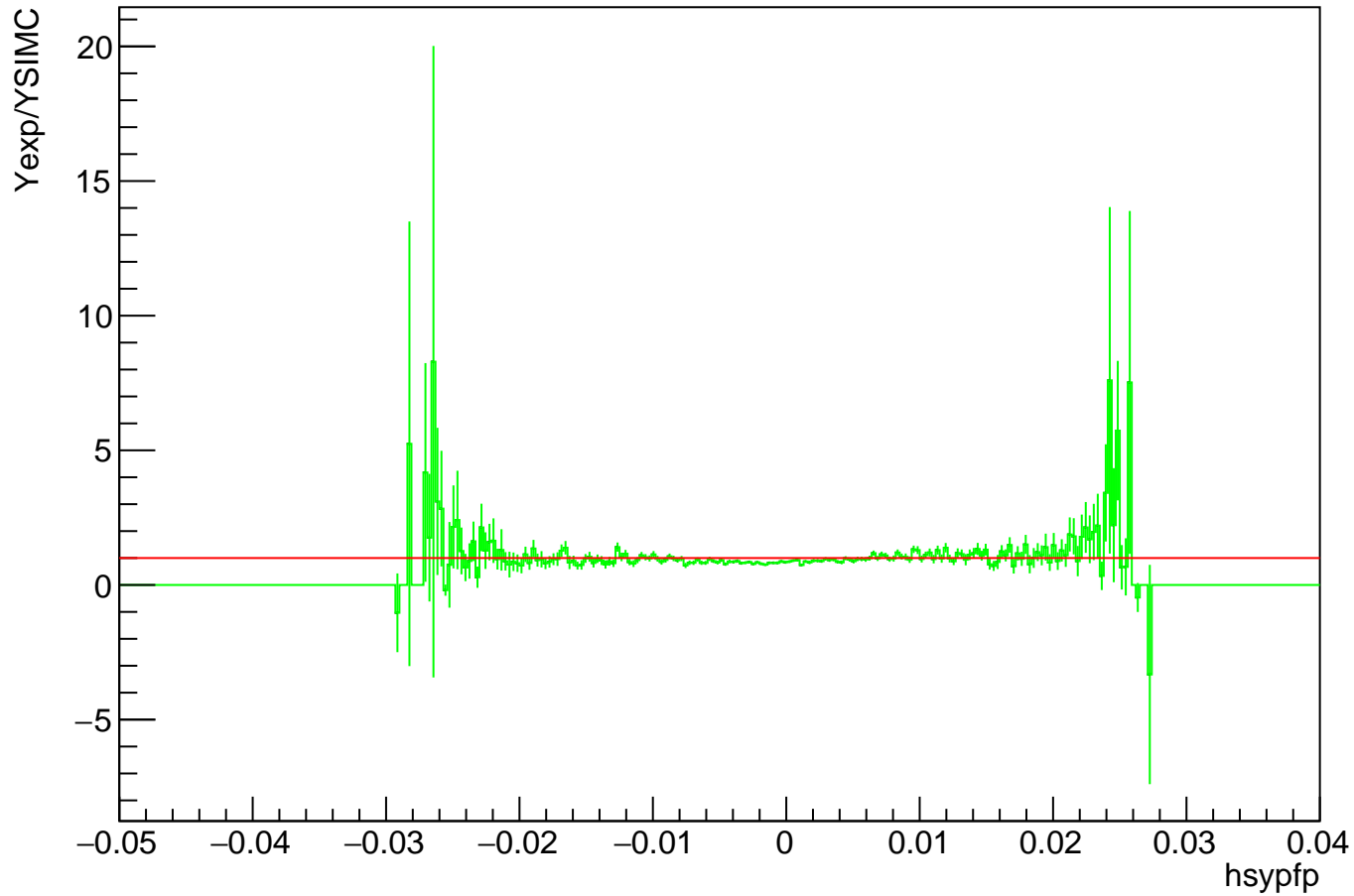
HMS xpfp



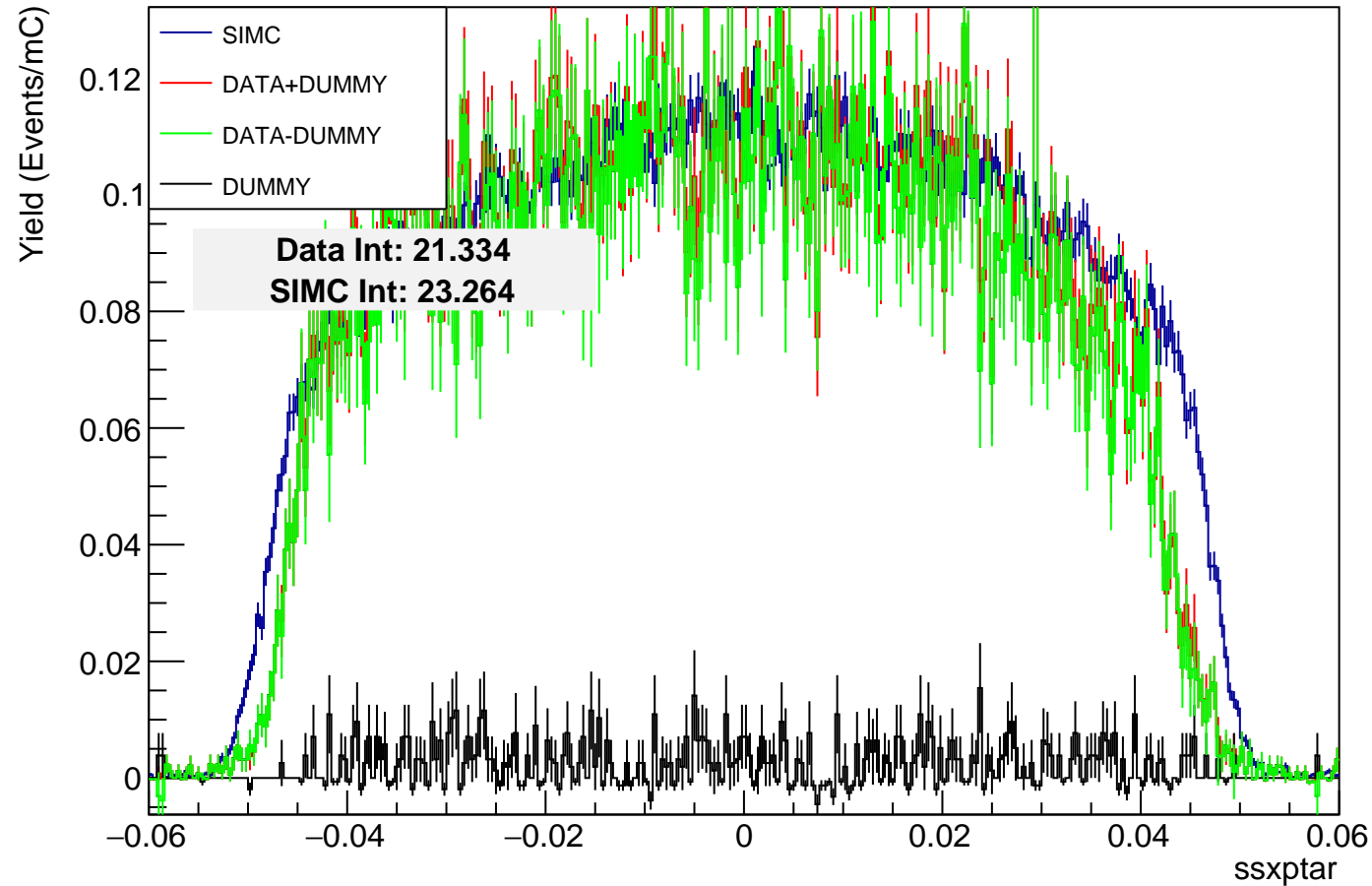
HMS ypdf



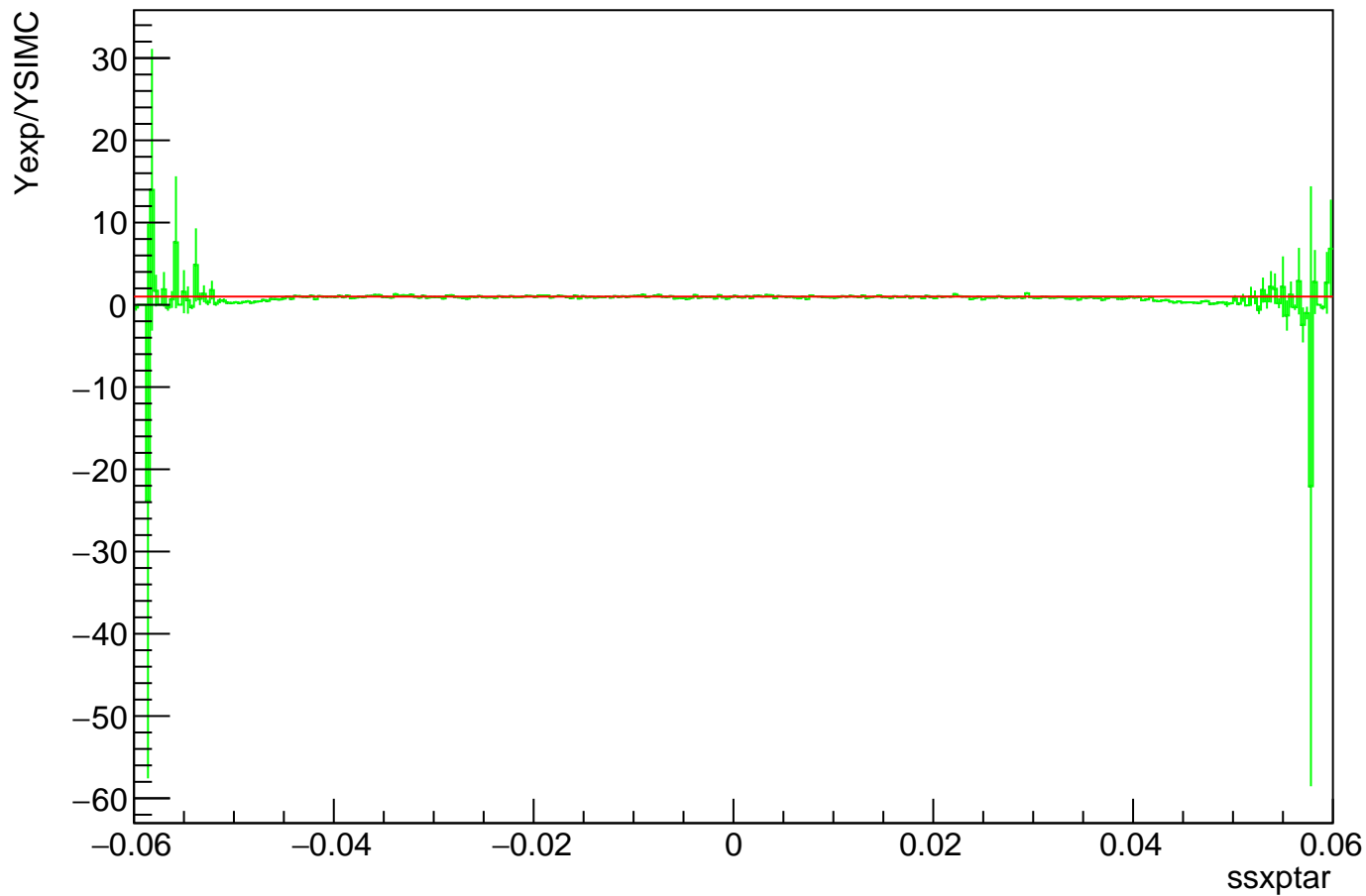
HMS yfp



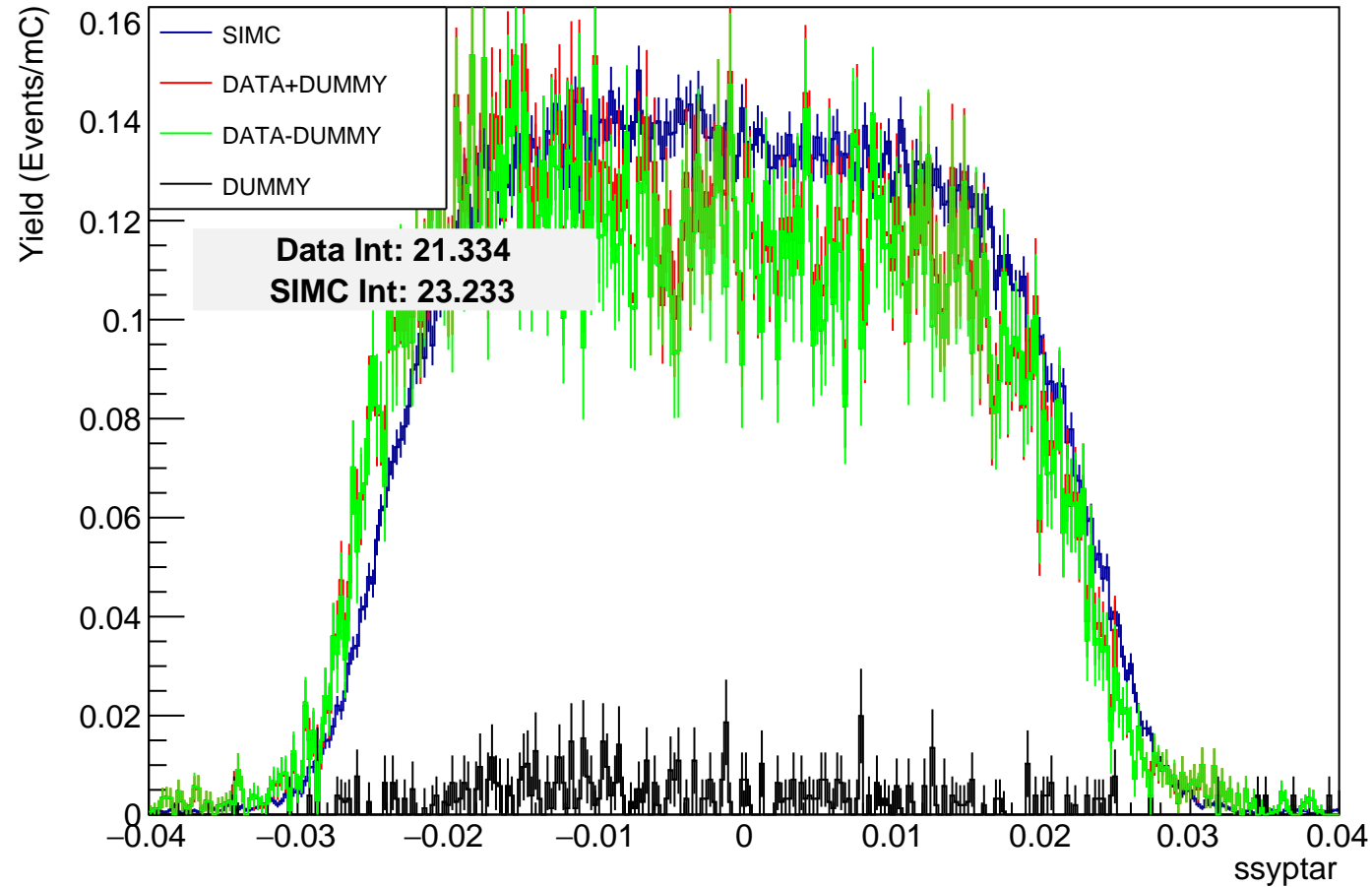
SHMS xptar



SHMS xptar

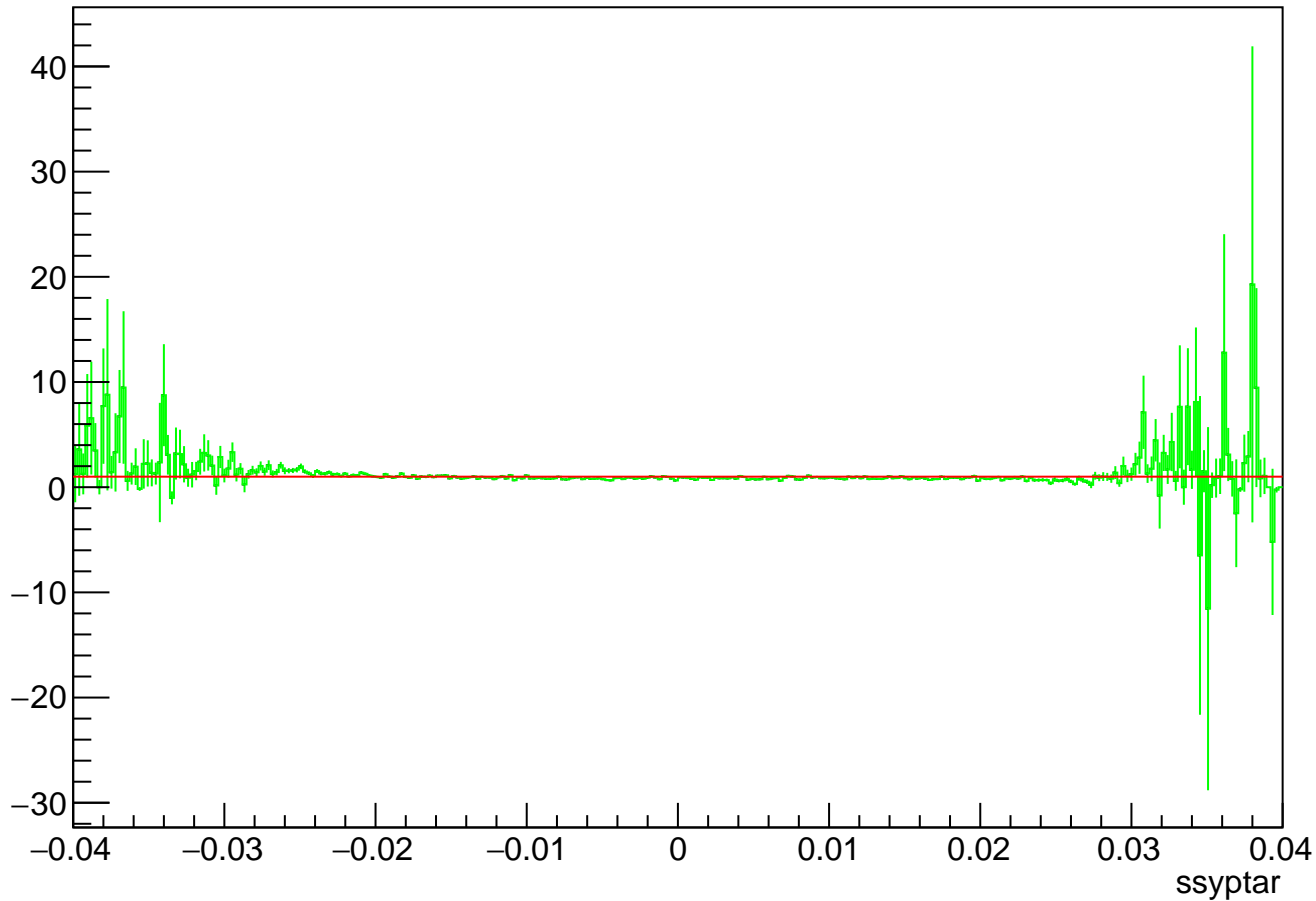


SHMS yptar

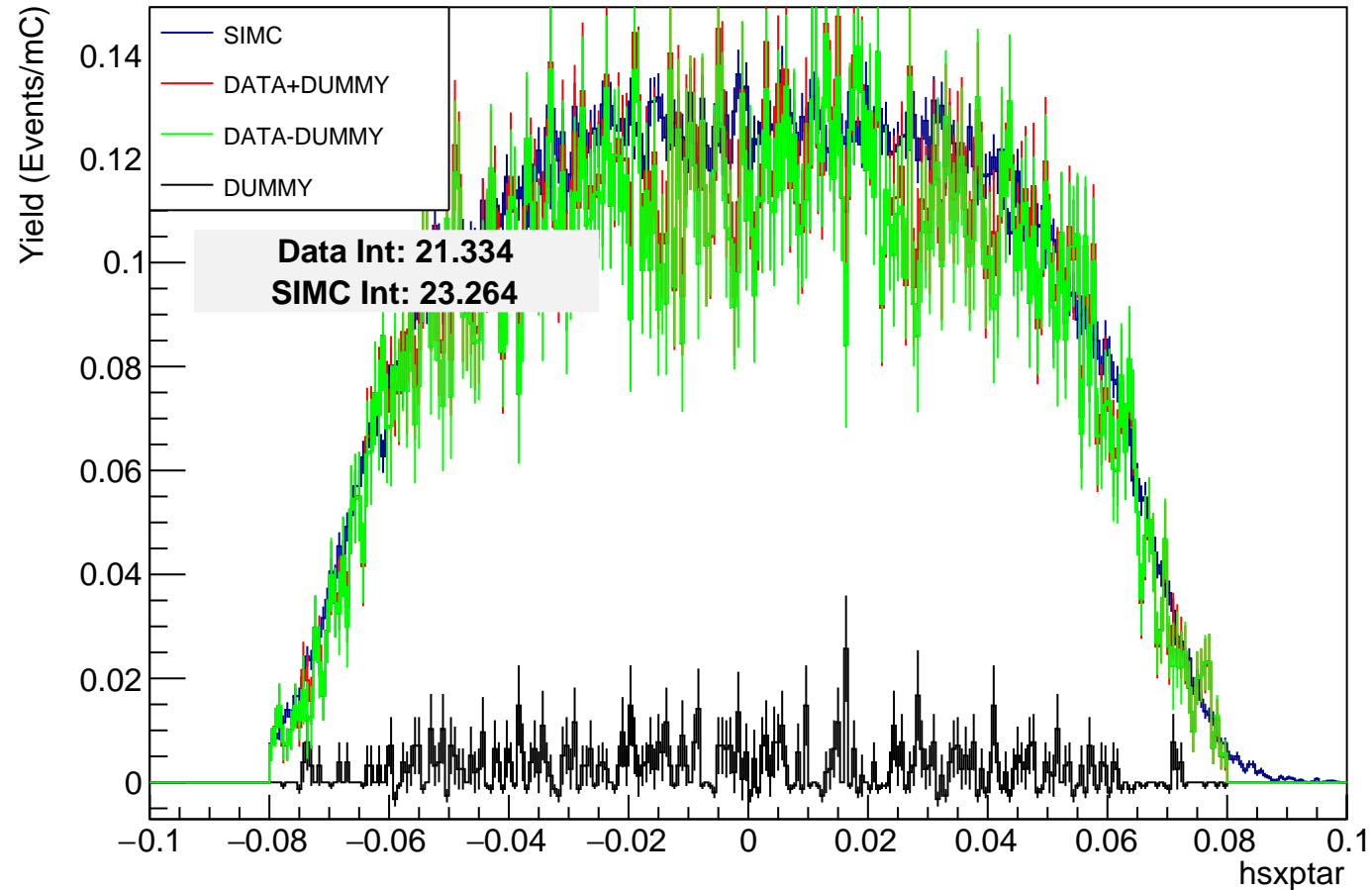


SHMS yptar

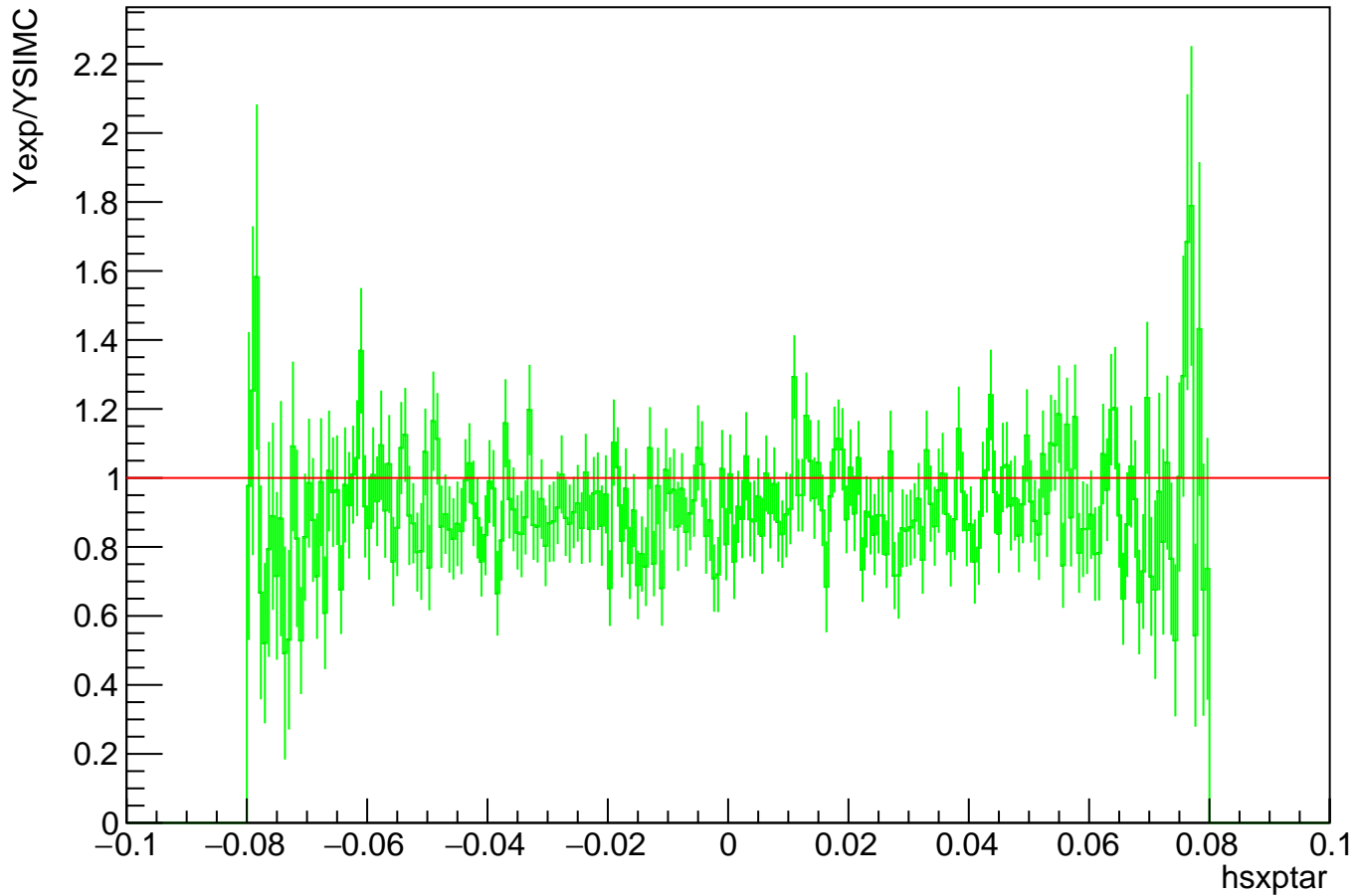
$Y_{\text{exp}}/Y_{\text{SIMC}}$



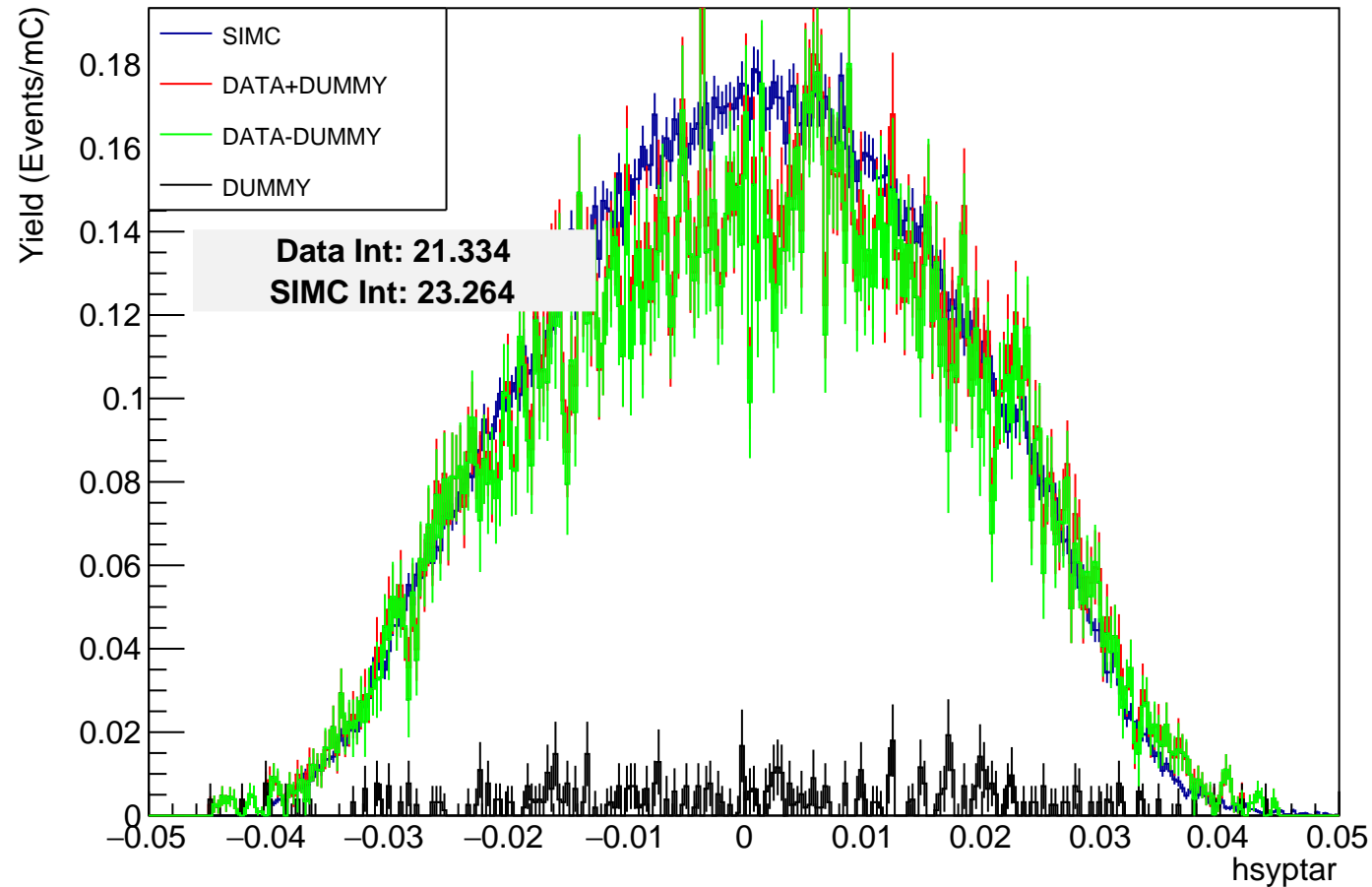
HMS xptar



HMS xptar

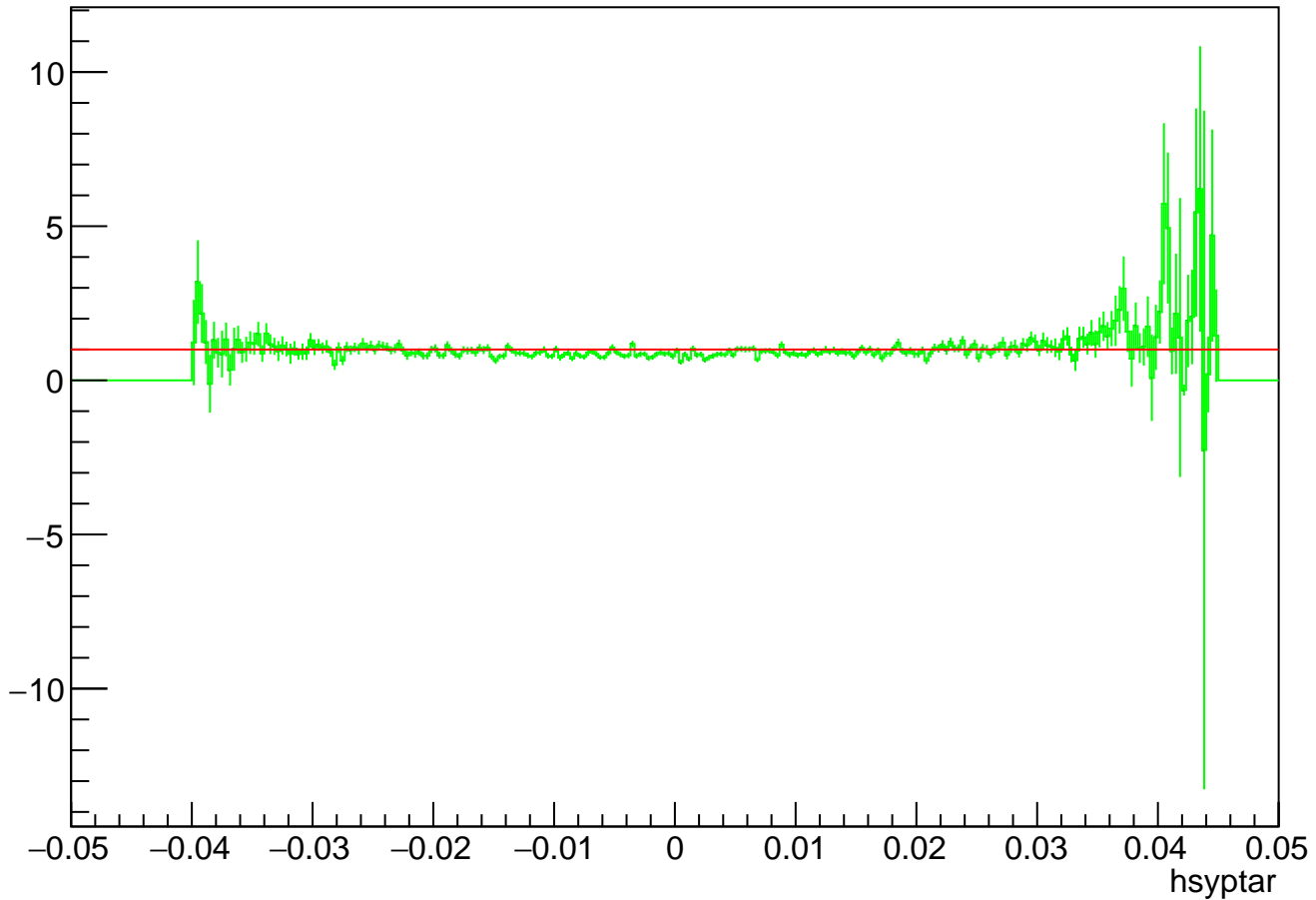


HMS yptar

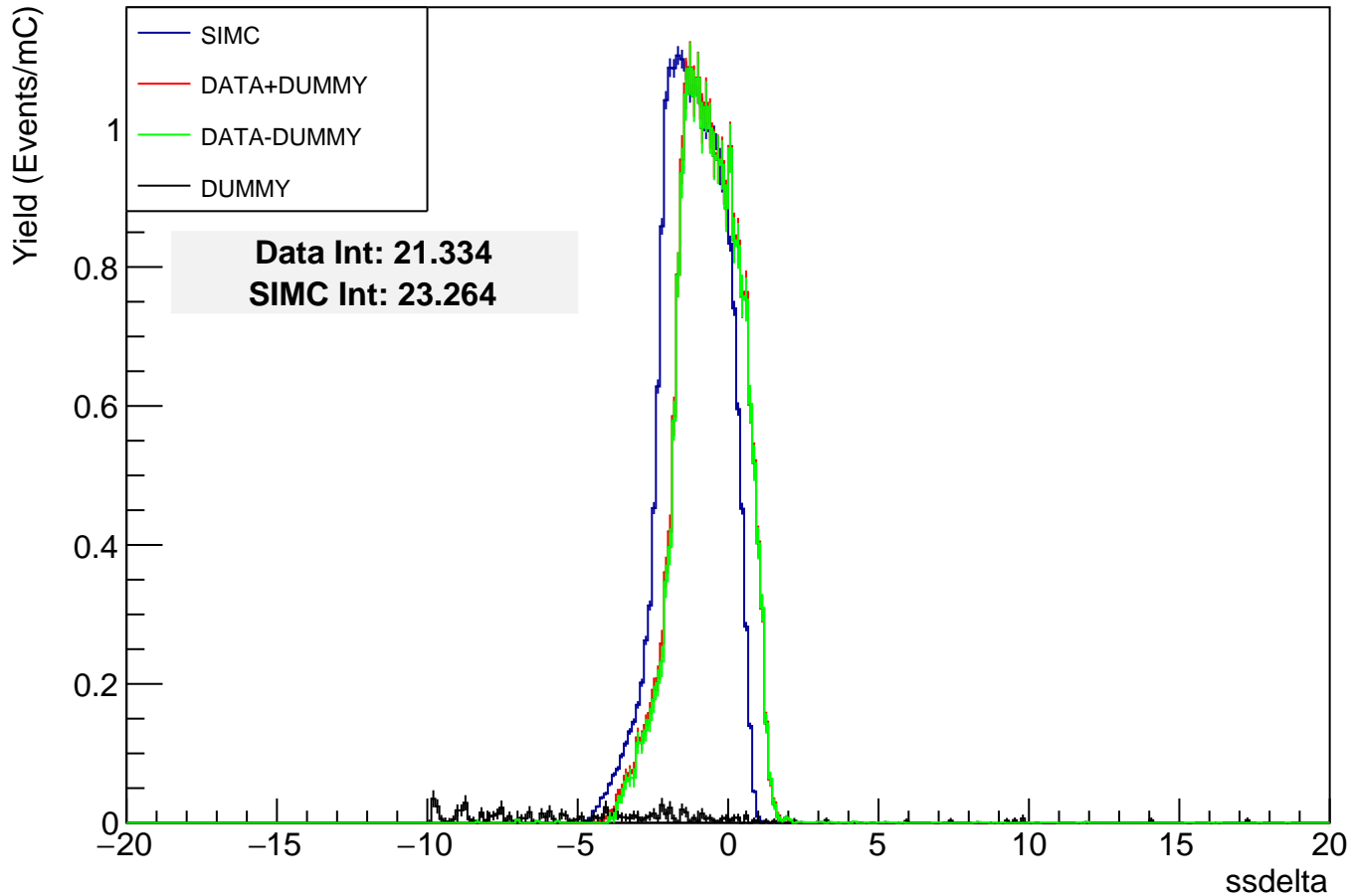


HMS yptar

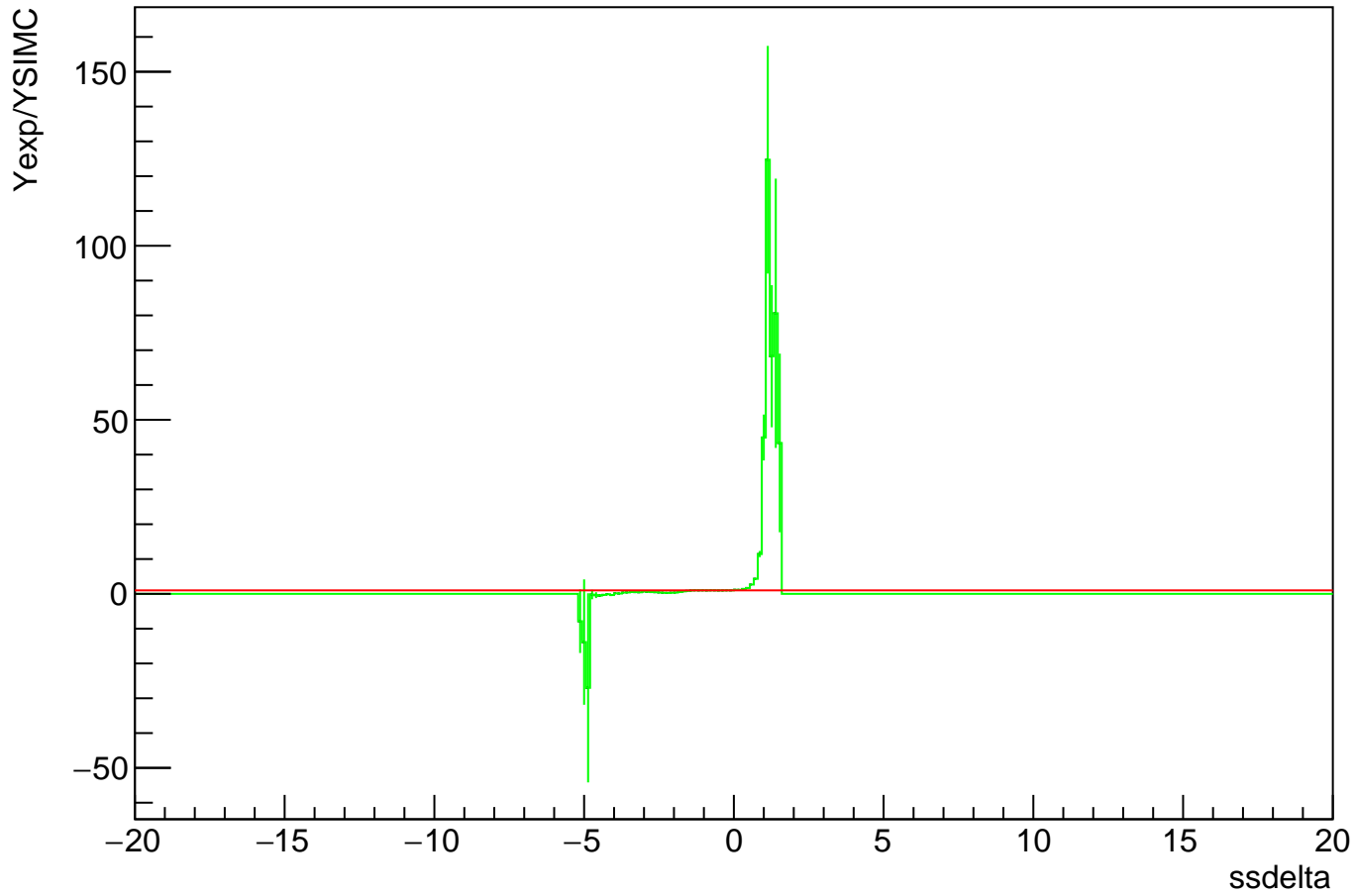
$Y_{\text{exp}}/Y_{\text{SIMC}}$



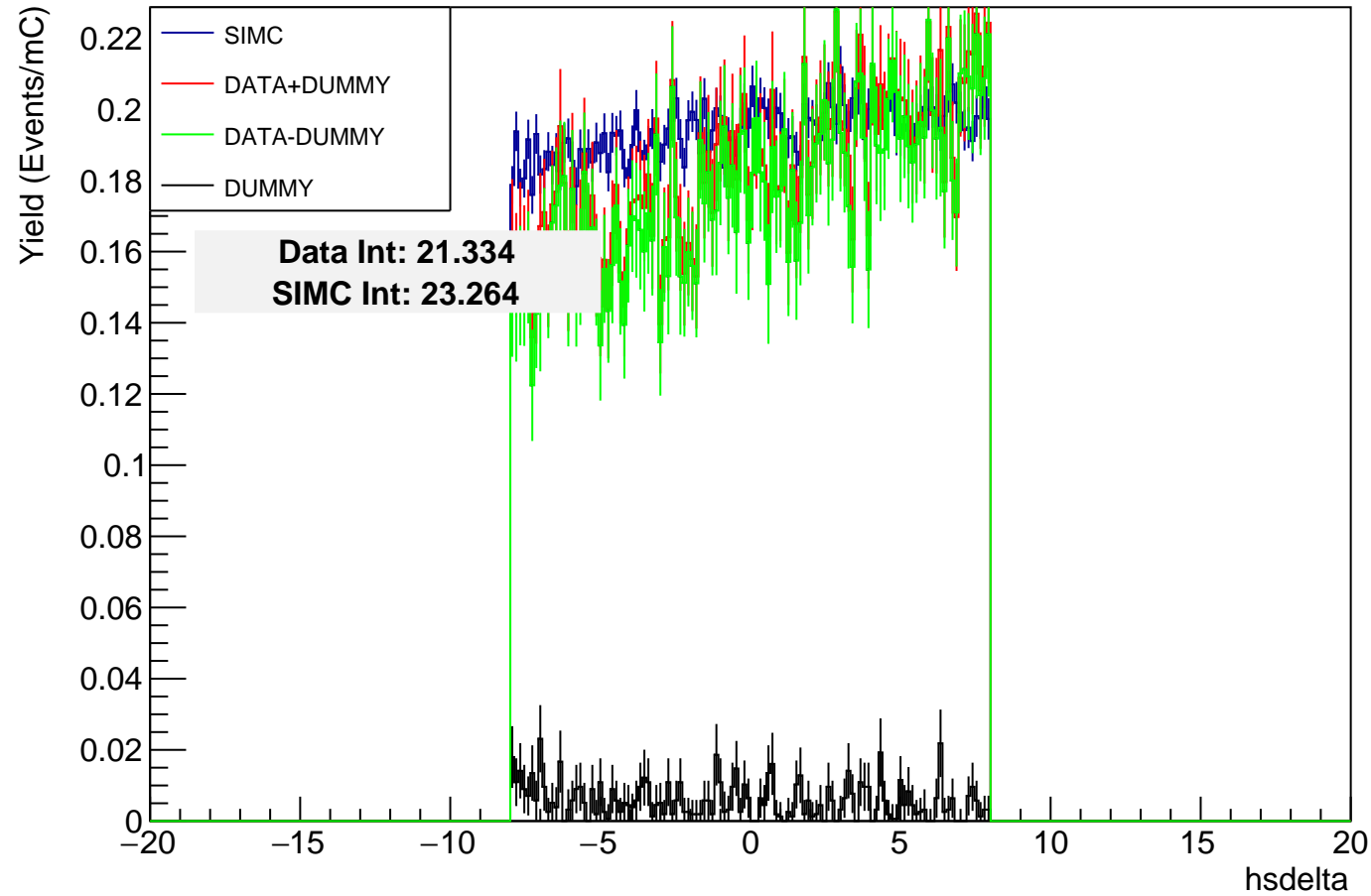
SHMS delta



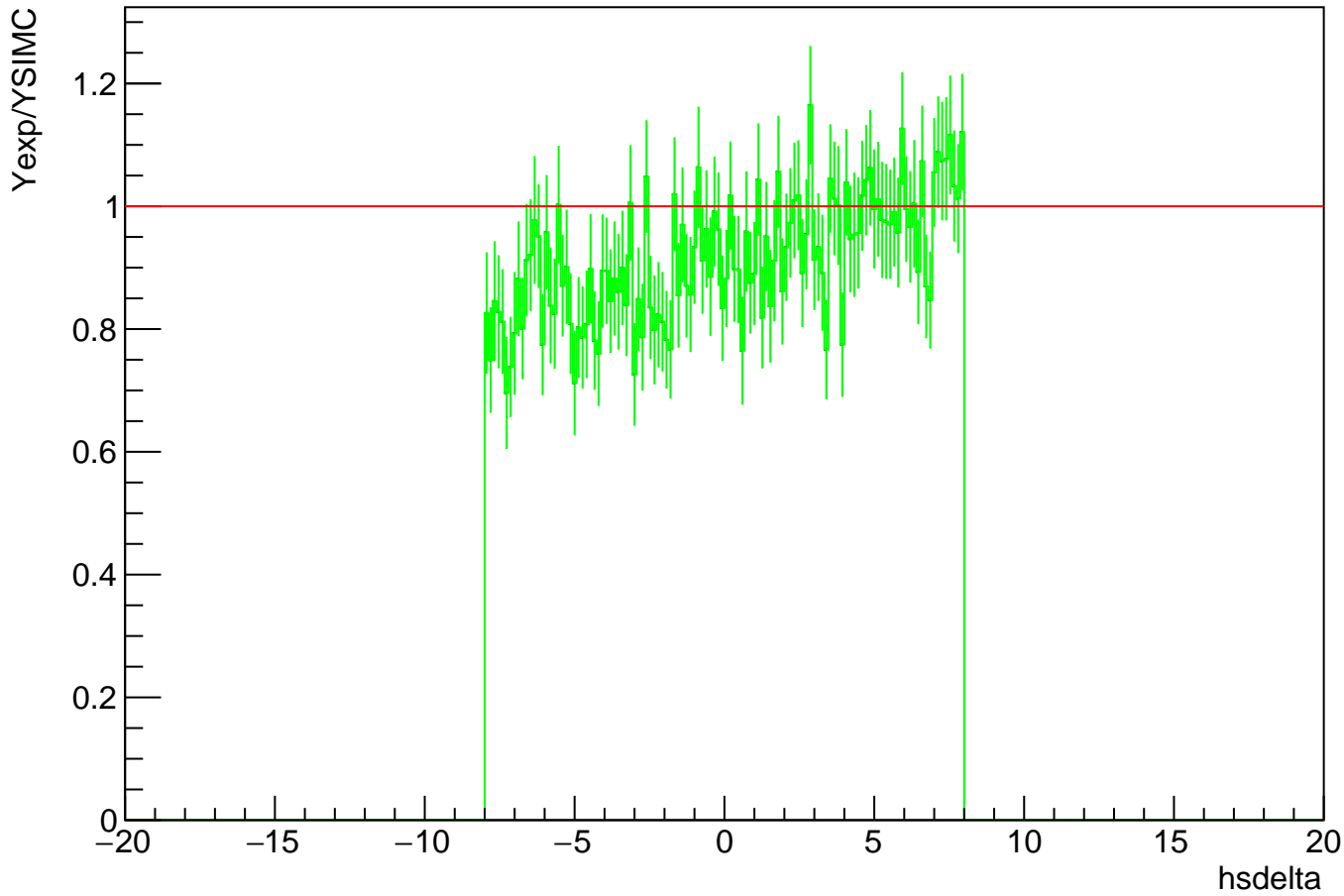
SHMS delta



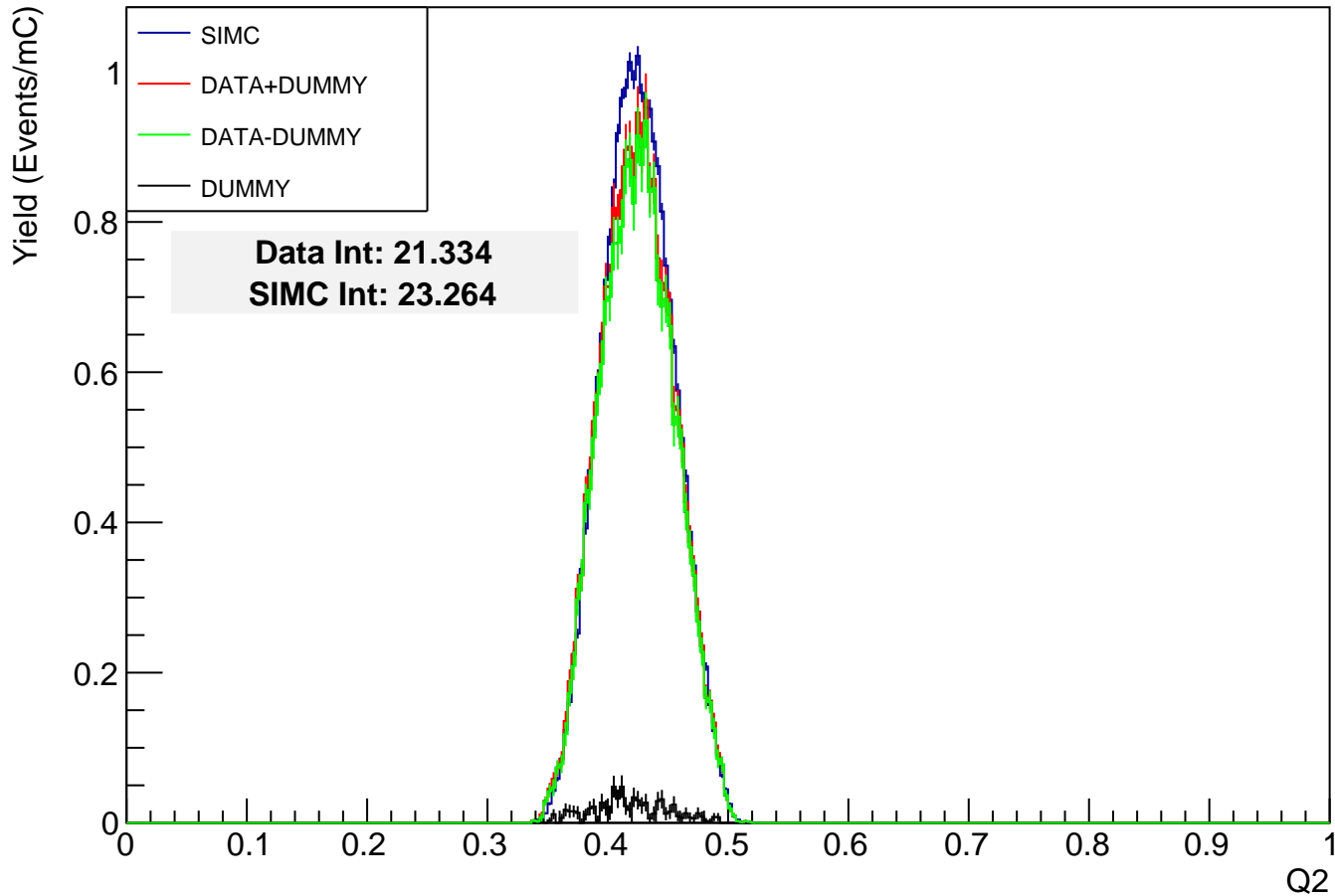
HMS Delta



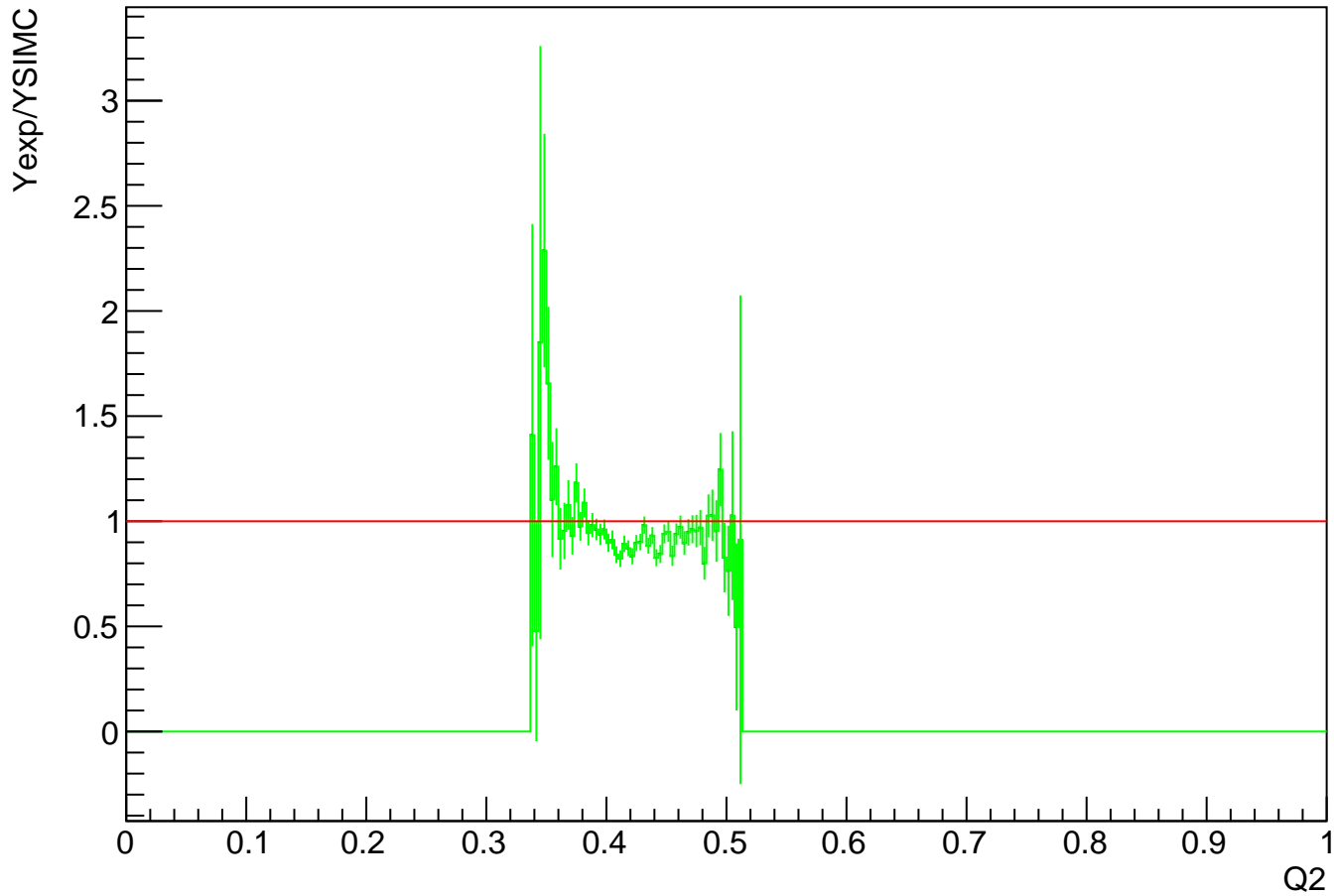
HMS Delta



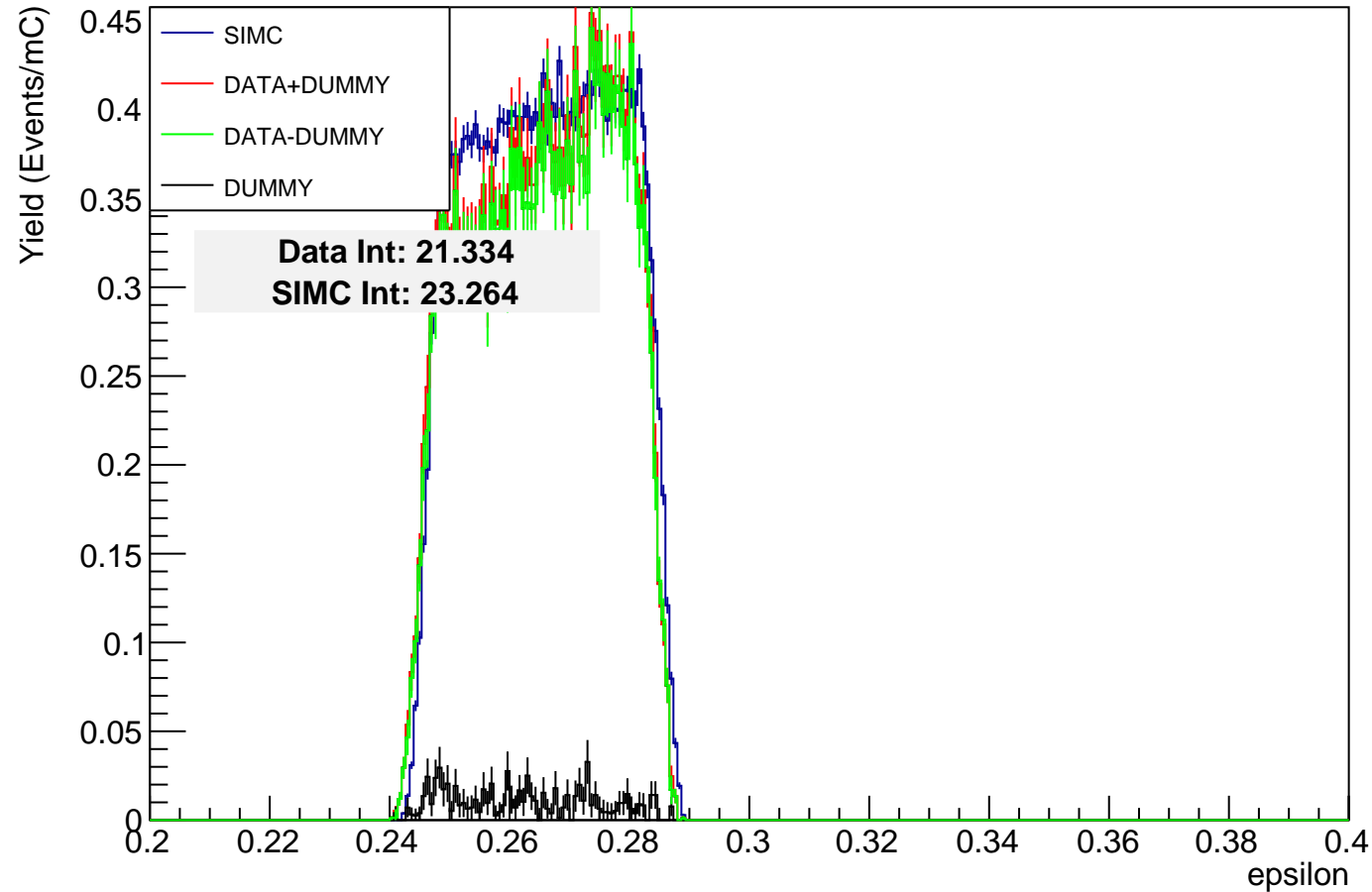
Q2



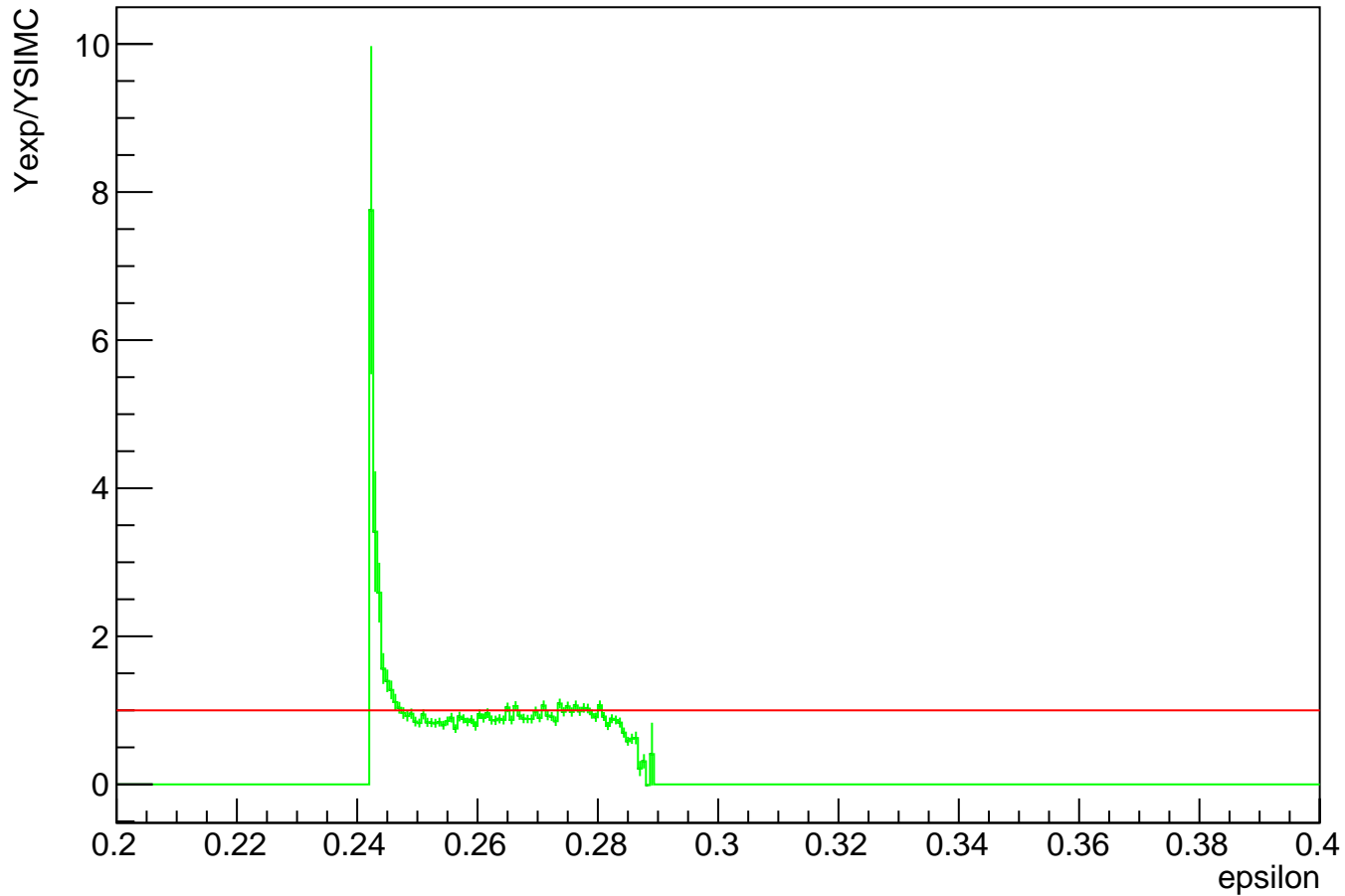
Q2



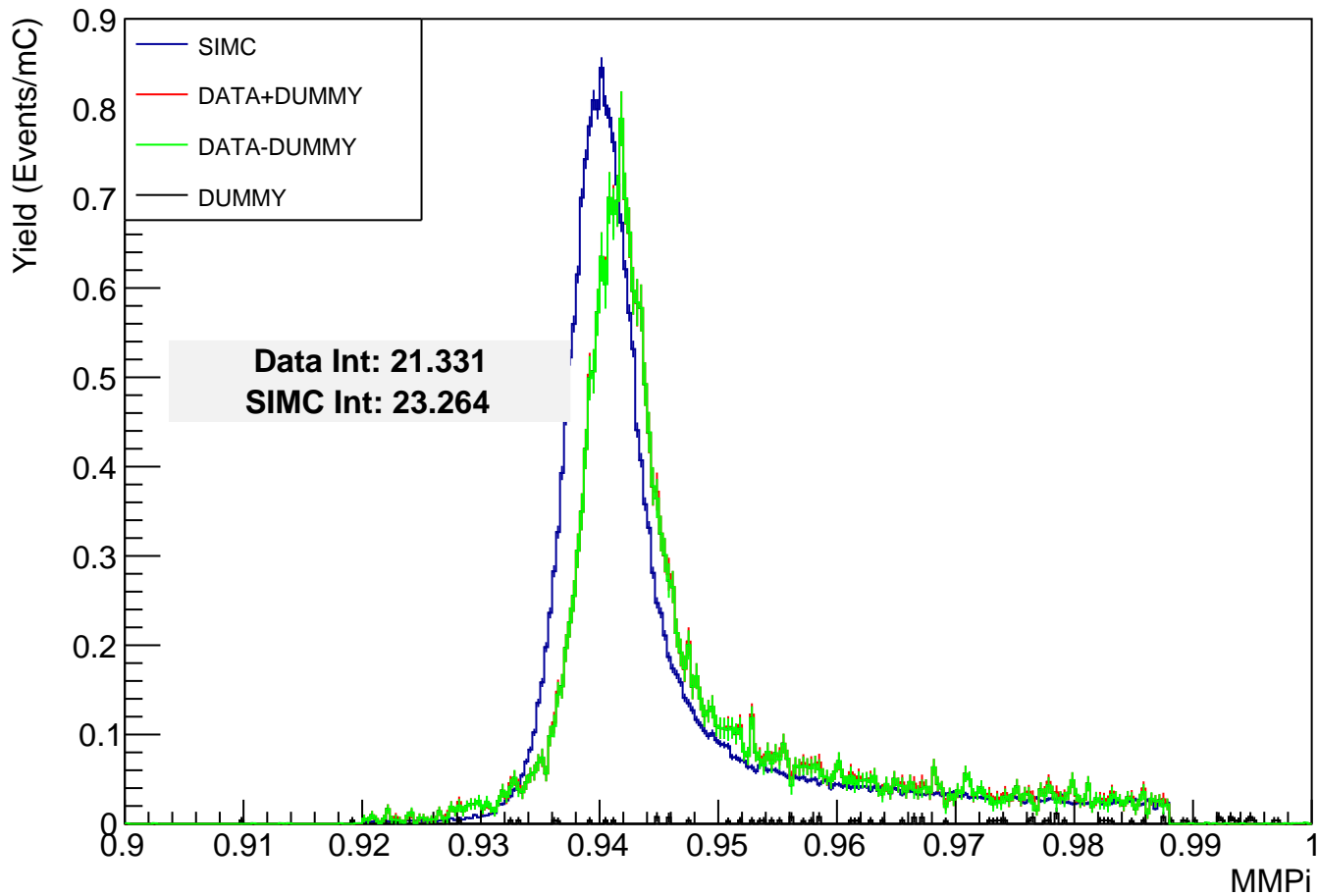
epsilon



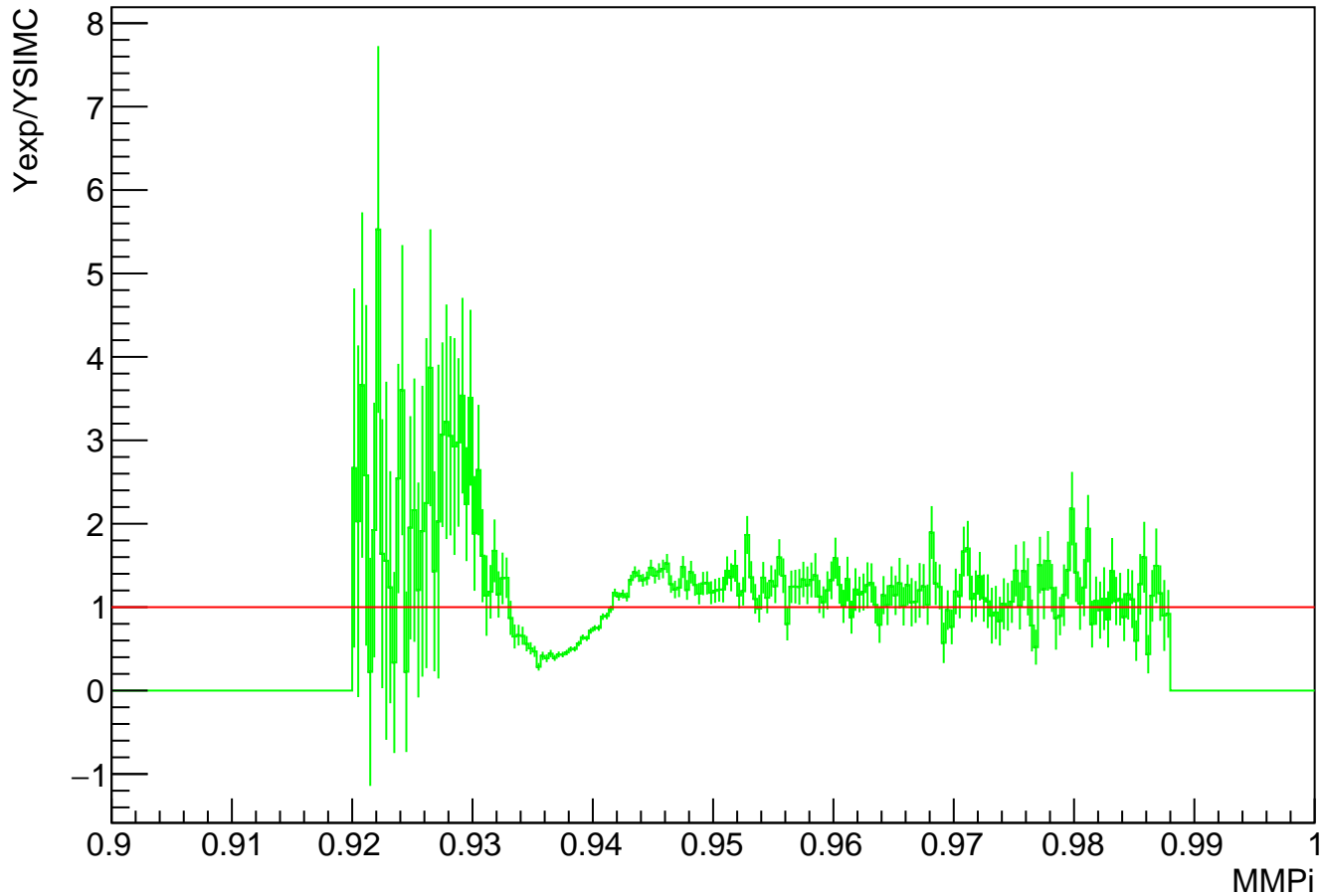
epsilon



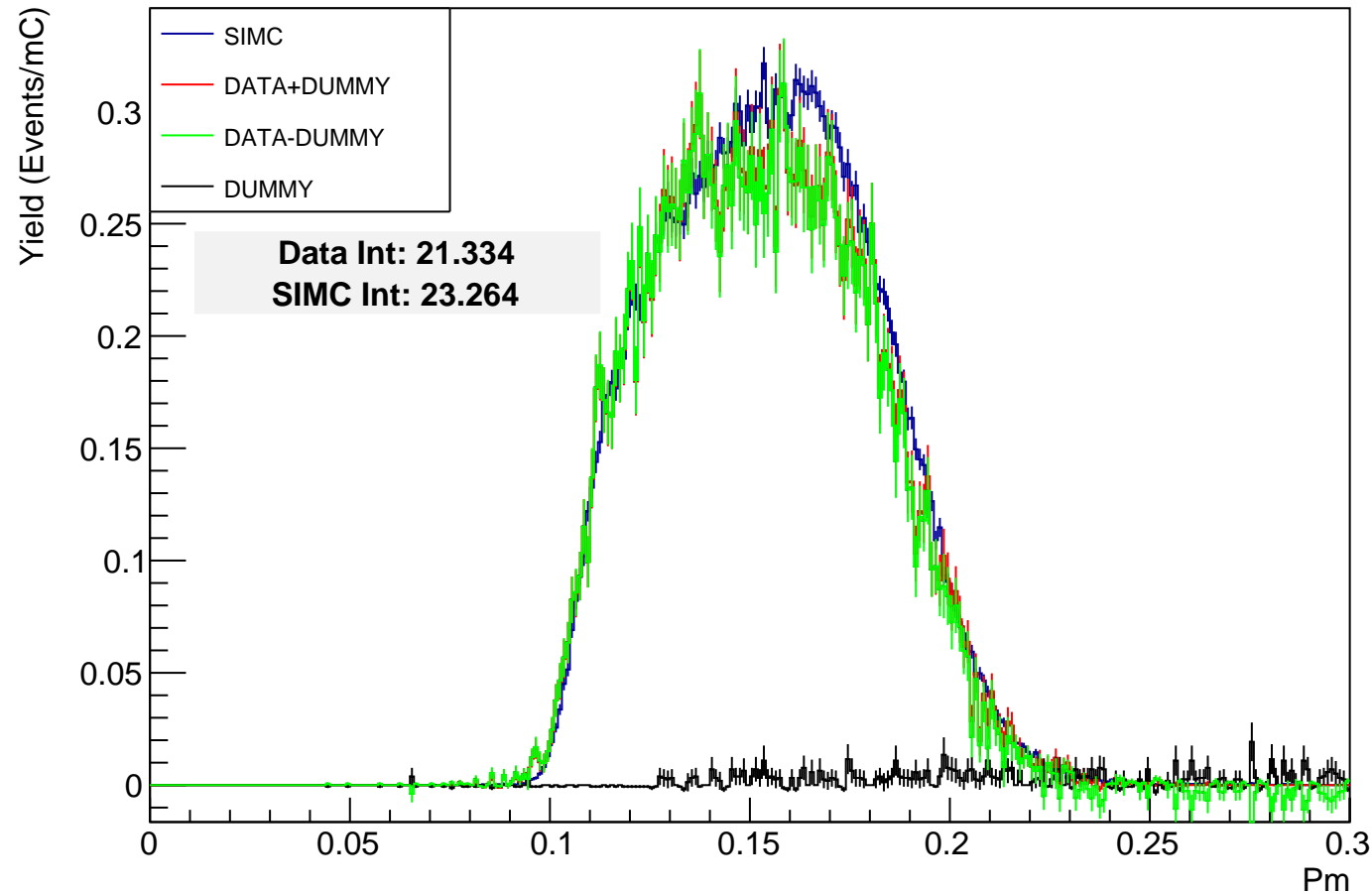
MMPi



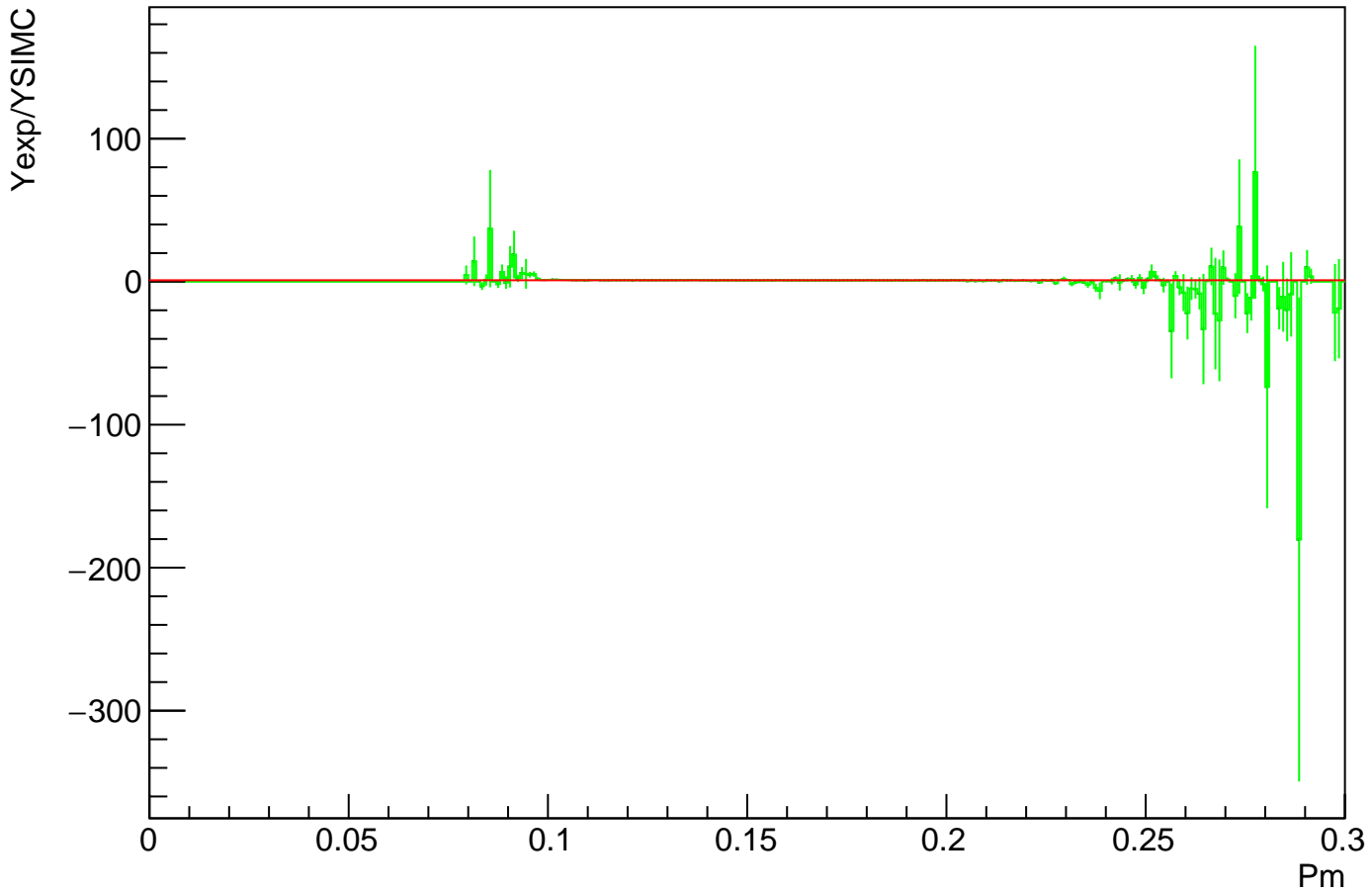
MMPi



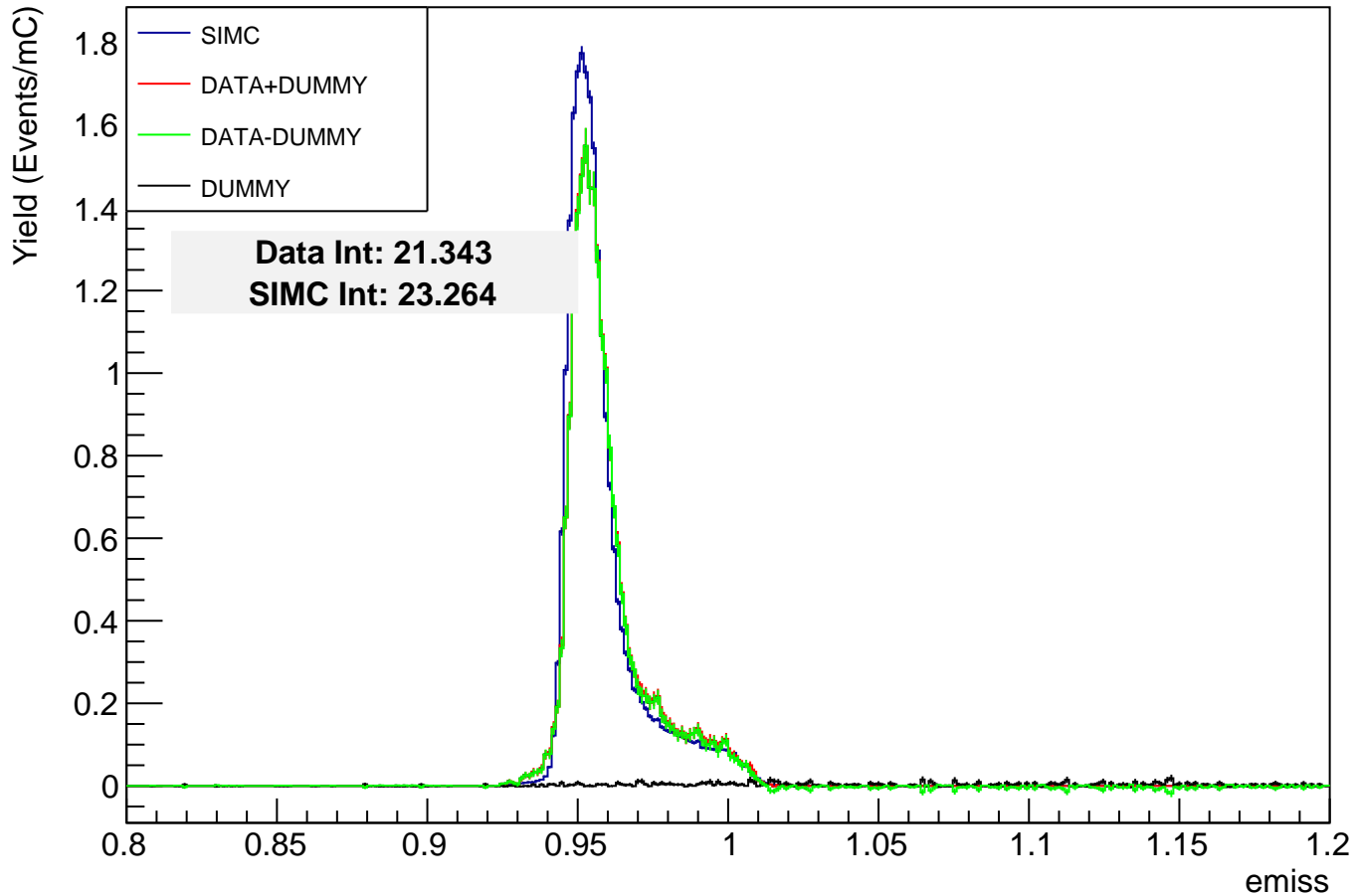
pmiss



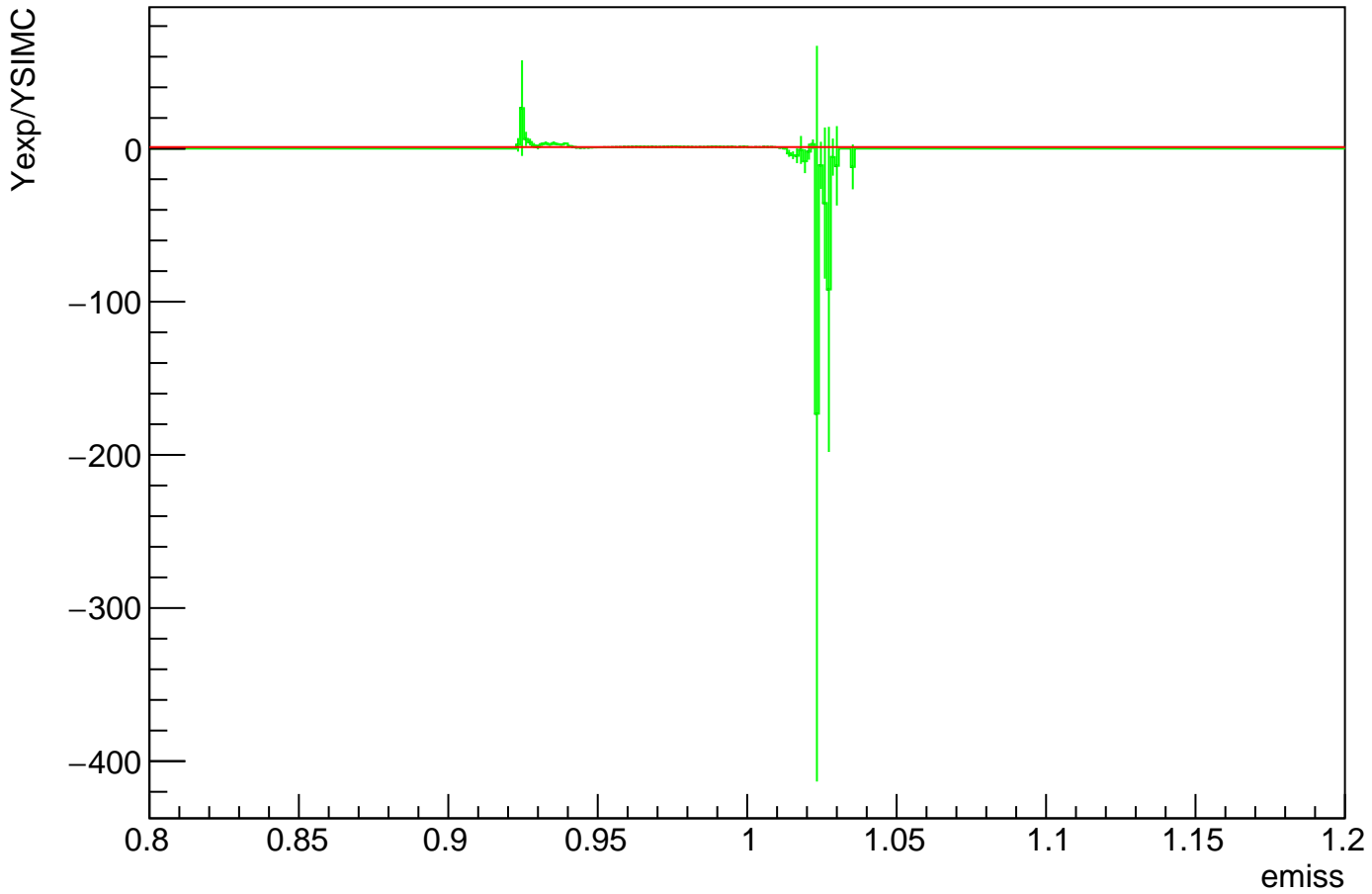
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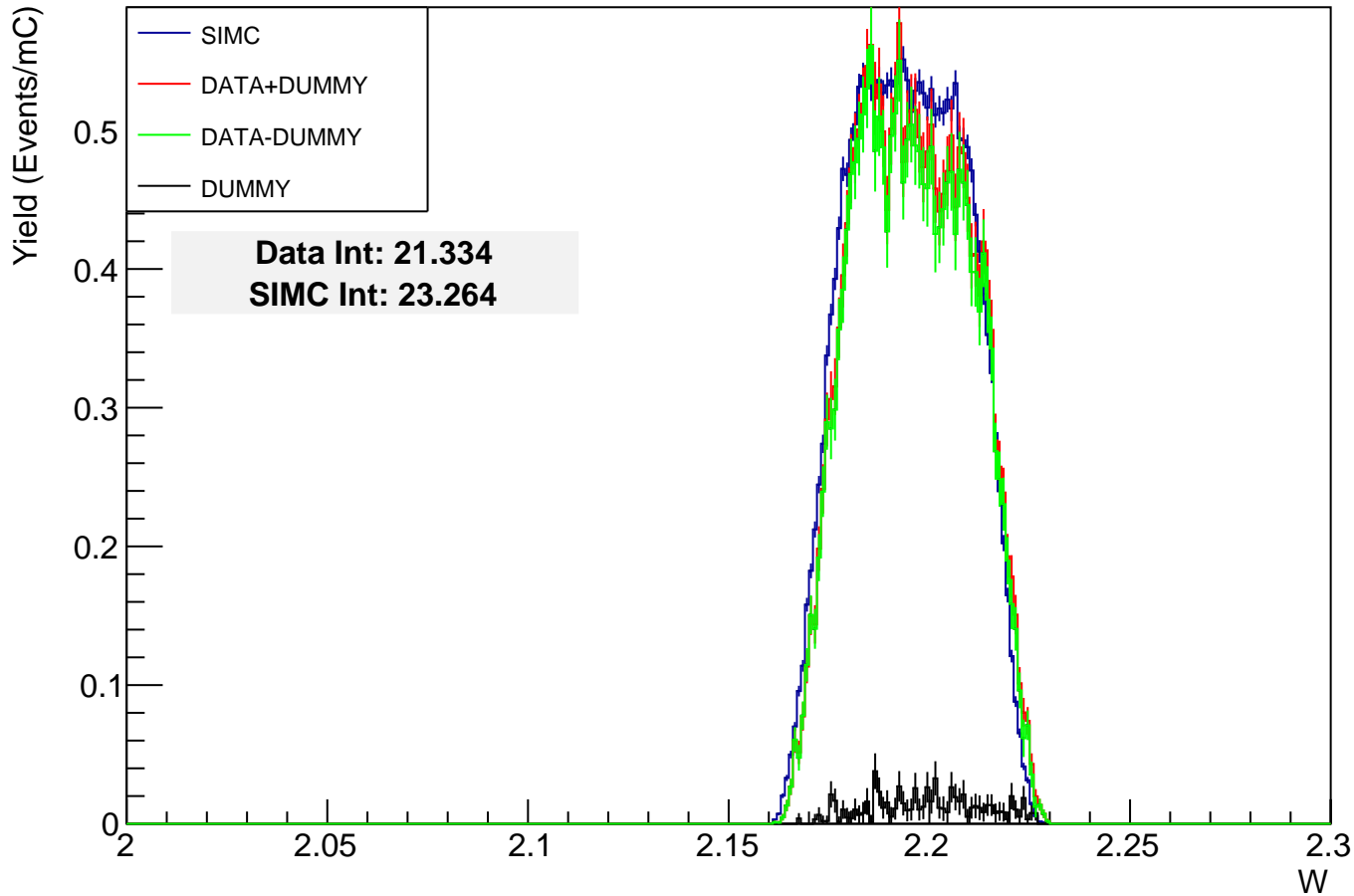
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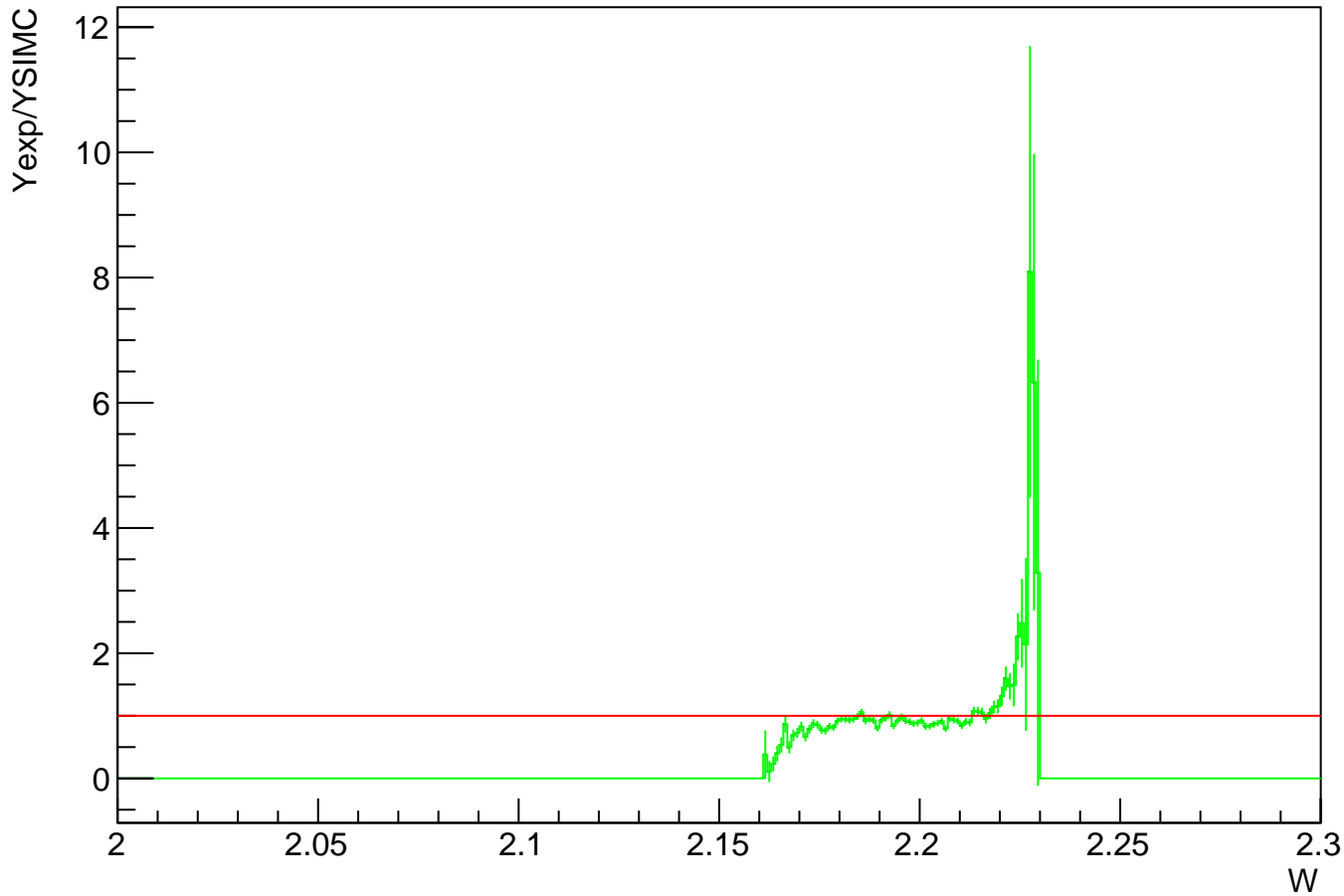
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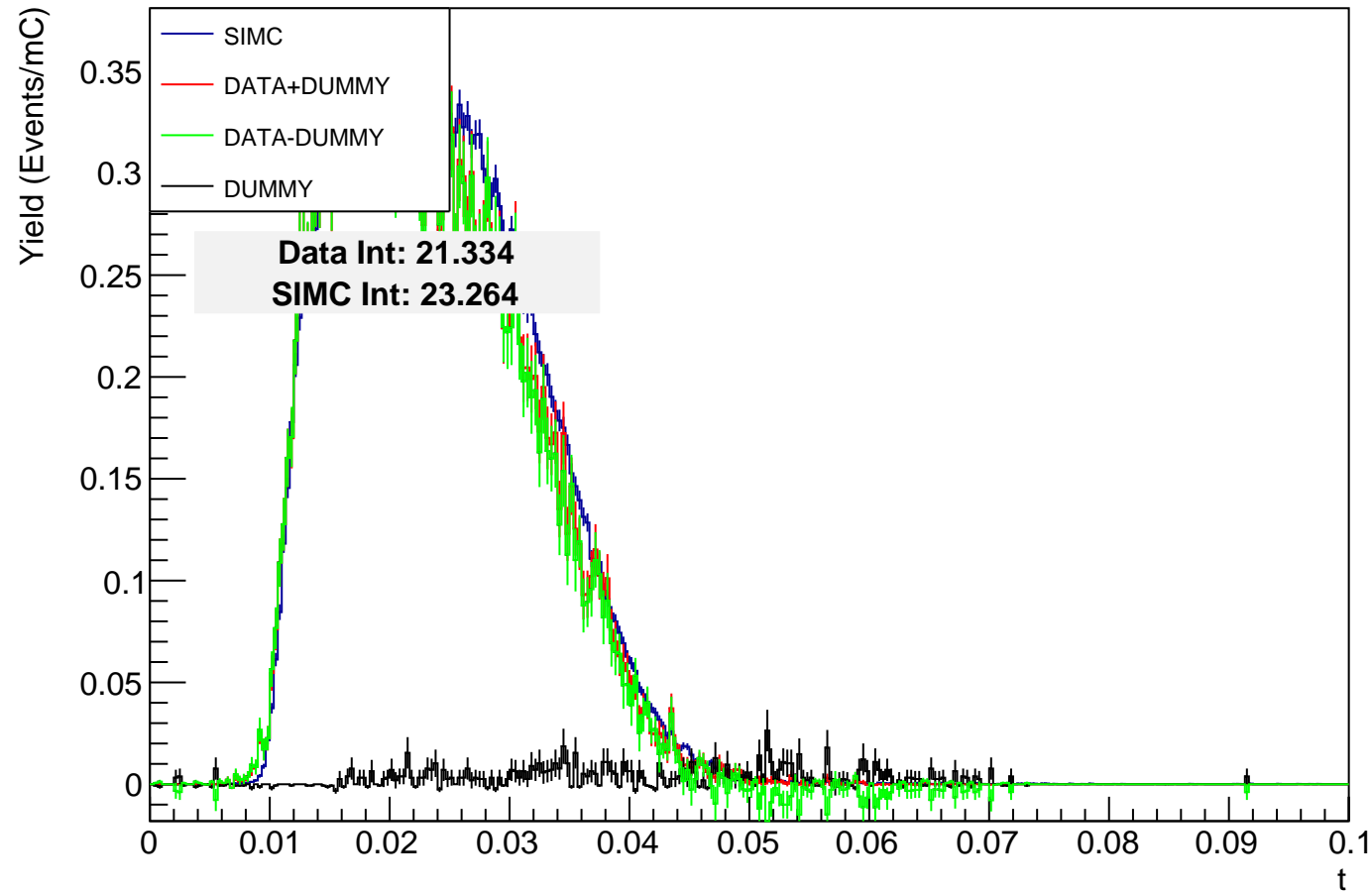
W



W

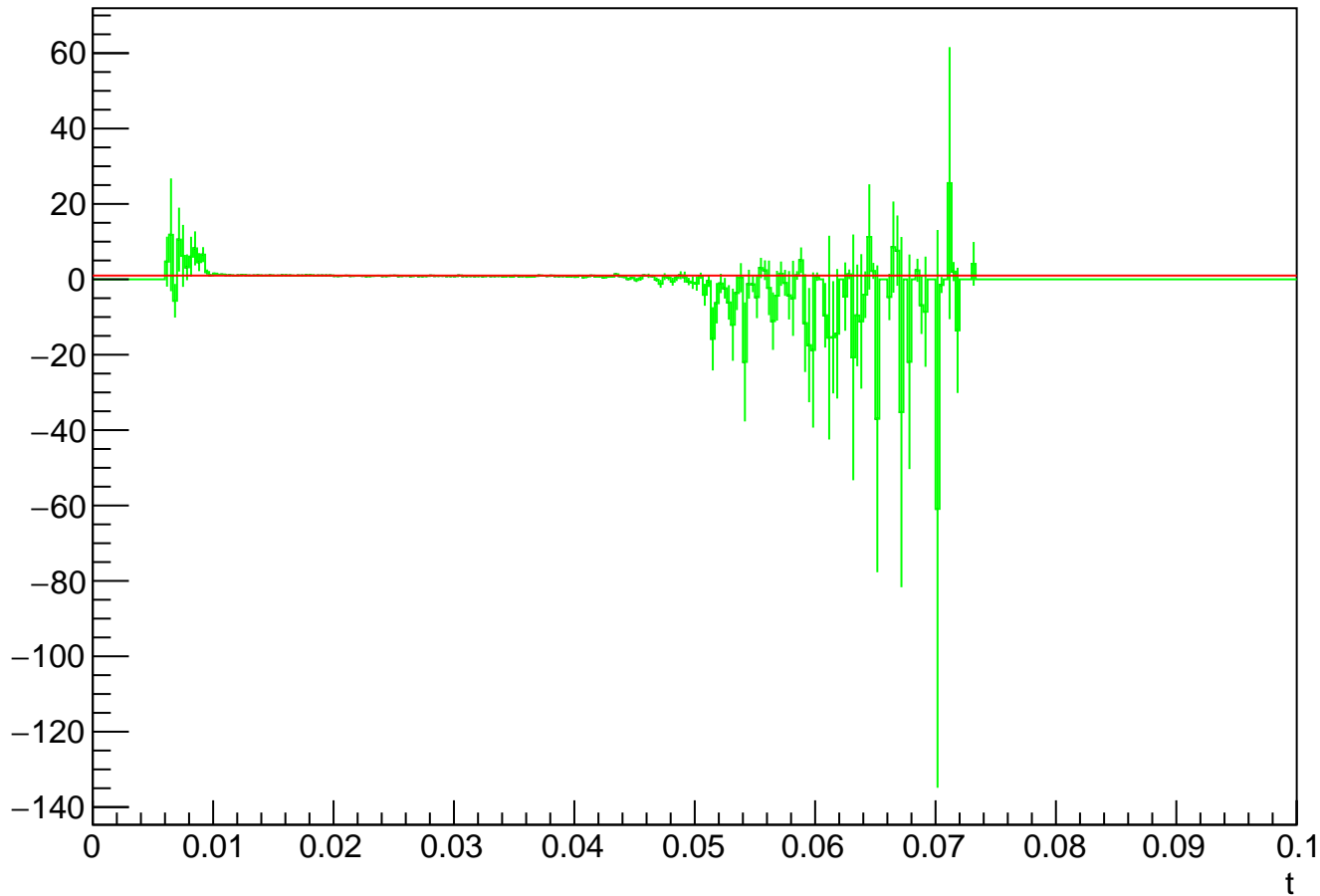


t



t

Yexp/YSIMC



Next Plan:

- Complete the rest settings of the PionLT data at low Q^2 .
- Improve the Heep coin study of the KaonLT at $Q^2 = 0.5 \text{ GeV}^2$.