

Update

Belle Data
All experiments of Belle

18 Jan. 2024

Cuts in the reconstruction program

- MVA photon cuts
- $1.6 < m_{\text{hadROE}} < 2.4 \text{ GeV}$

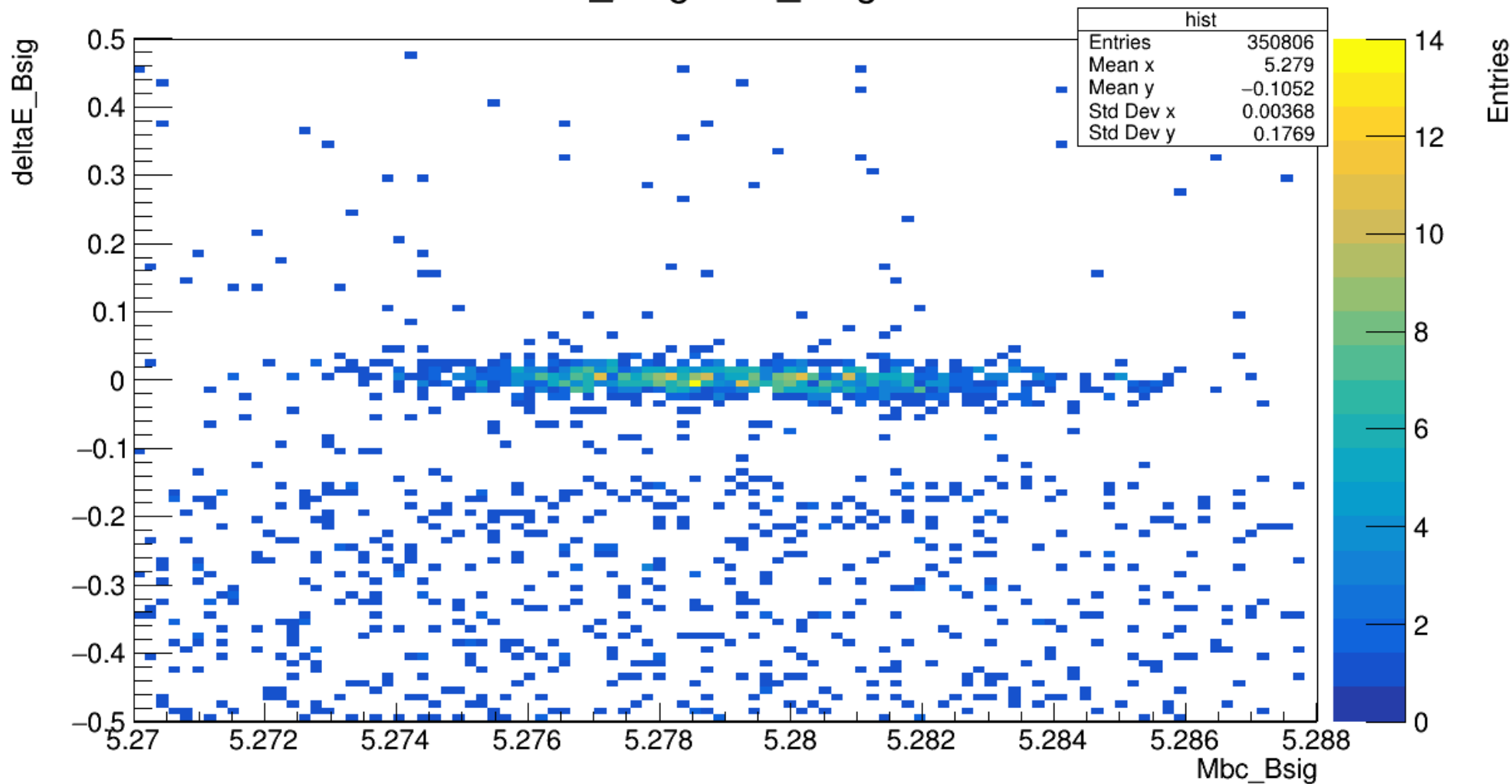
Signal side cuts (root level)

- All applied cuts are mentioned in the title of the plots.

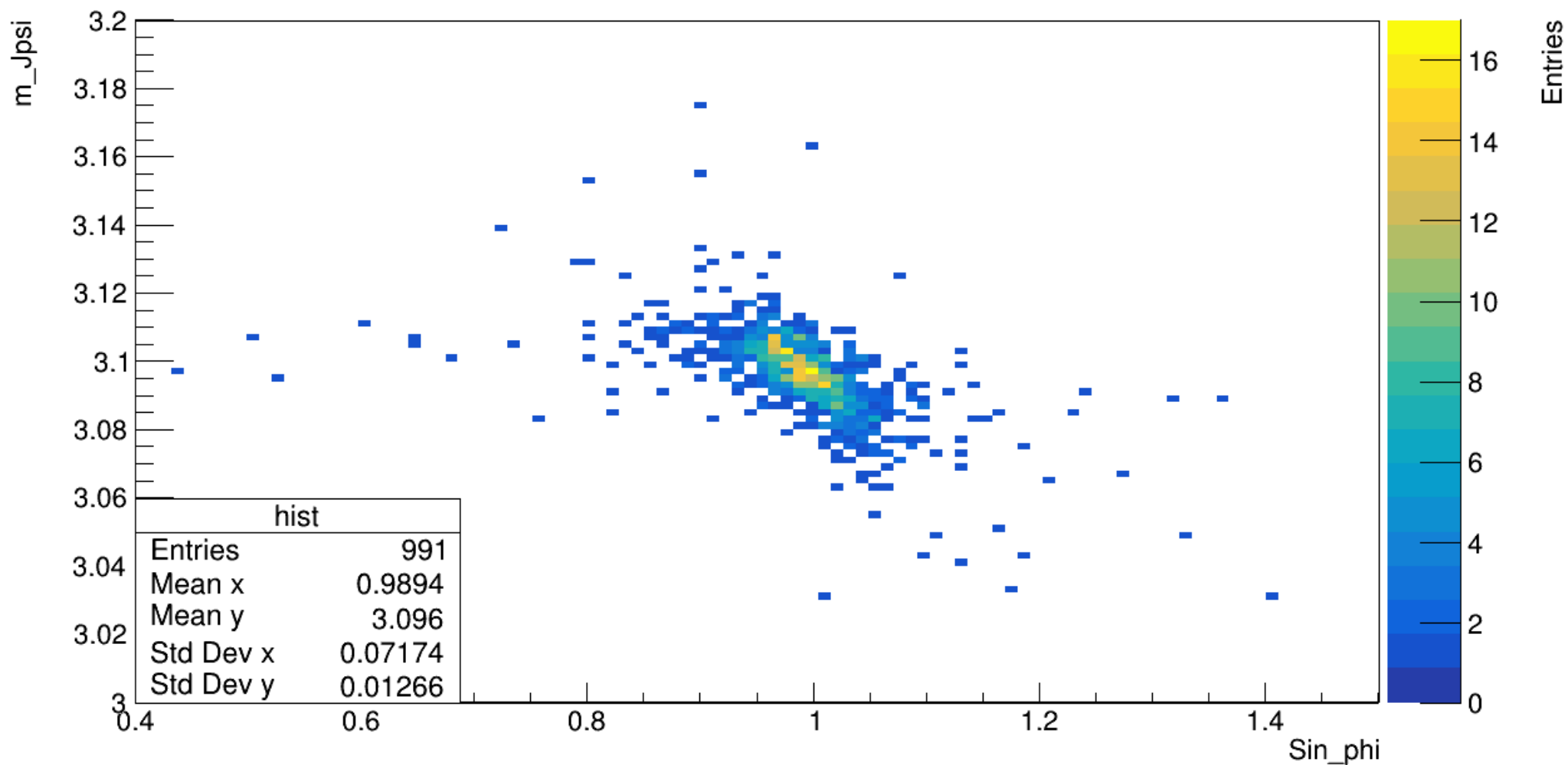
Last meeting comments

- Scatter plots for
 - 1- $\sin\phi$ Vs $m(\text{J/Psi})$
 - 2- M_{bc} Vs $\Delta E_{B_{\text{sig}}}$
- Rescaling of the MC.

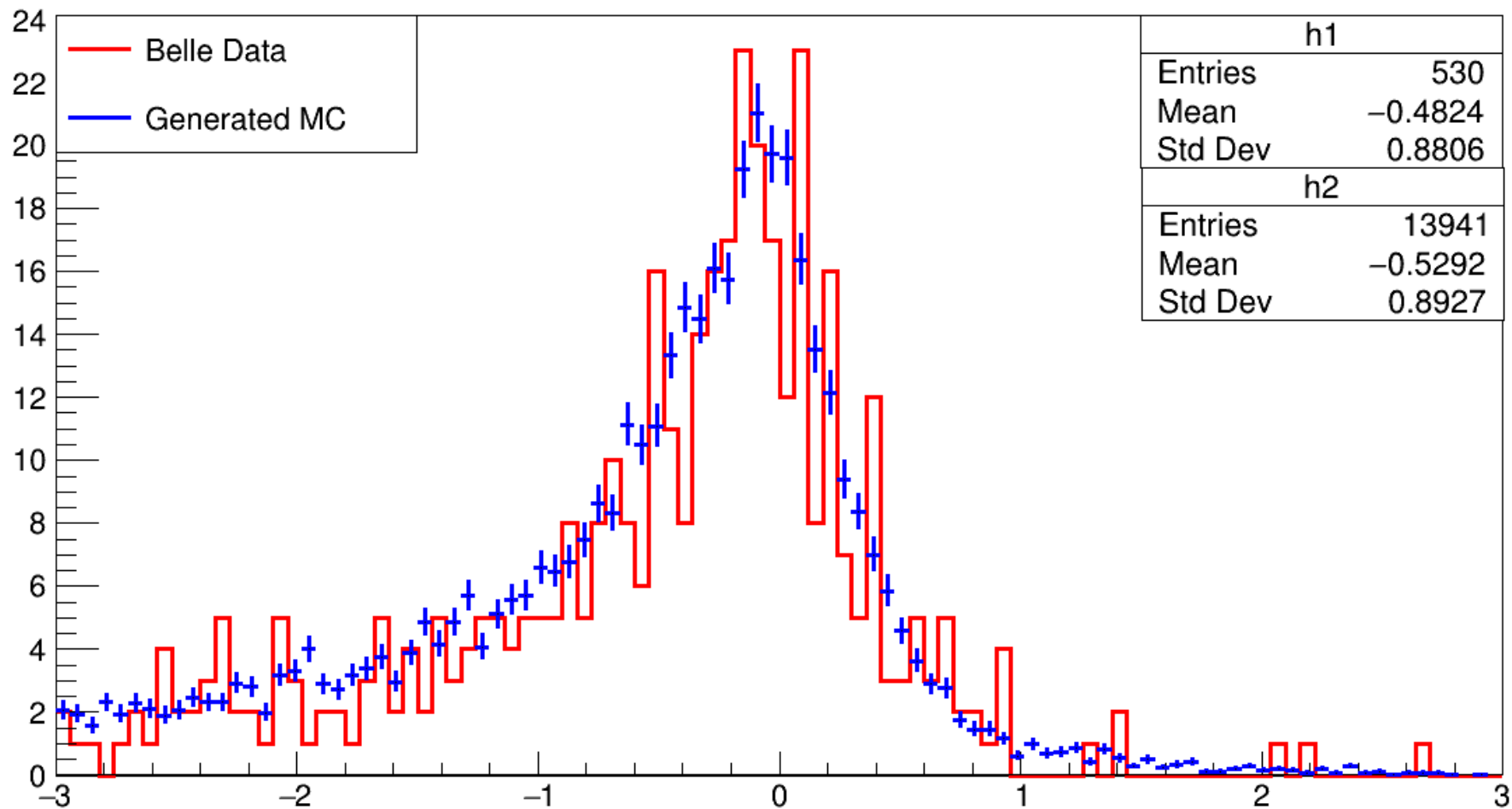
deltaE_Bsig:Mbc_Bsig with Rank 1



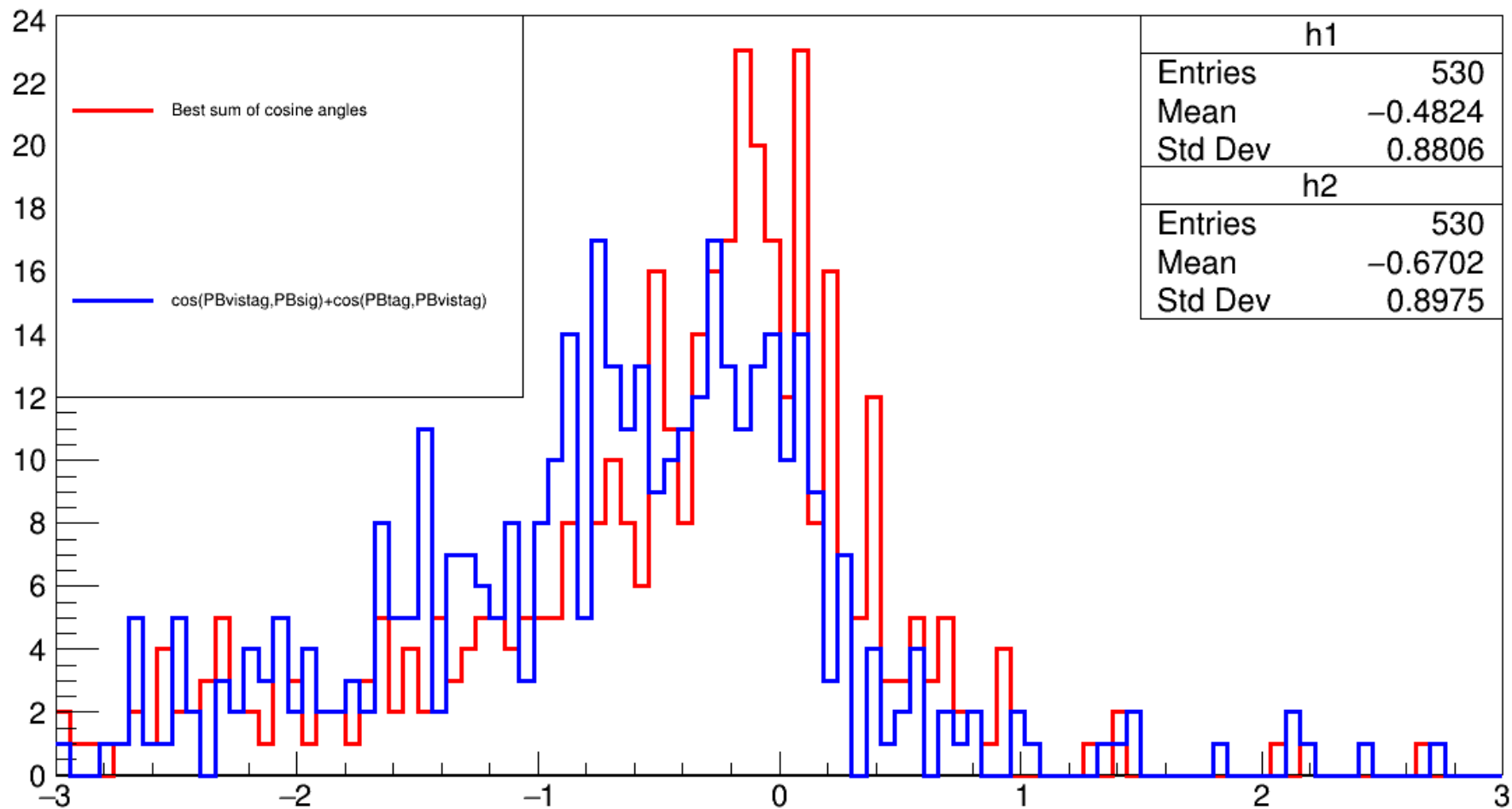
m_Jpsi:Sin_phi with Rank 1, $-0.050 < \Delta E_{Bsig} < 0.050$ and $M_{bc_Bsig} > 5.27$



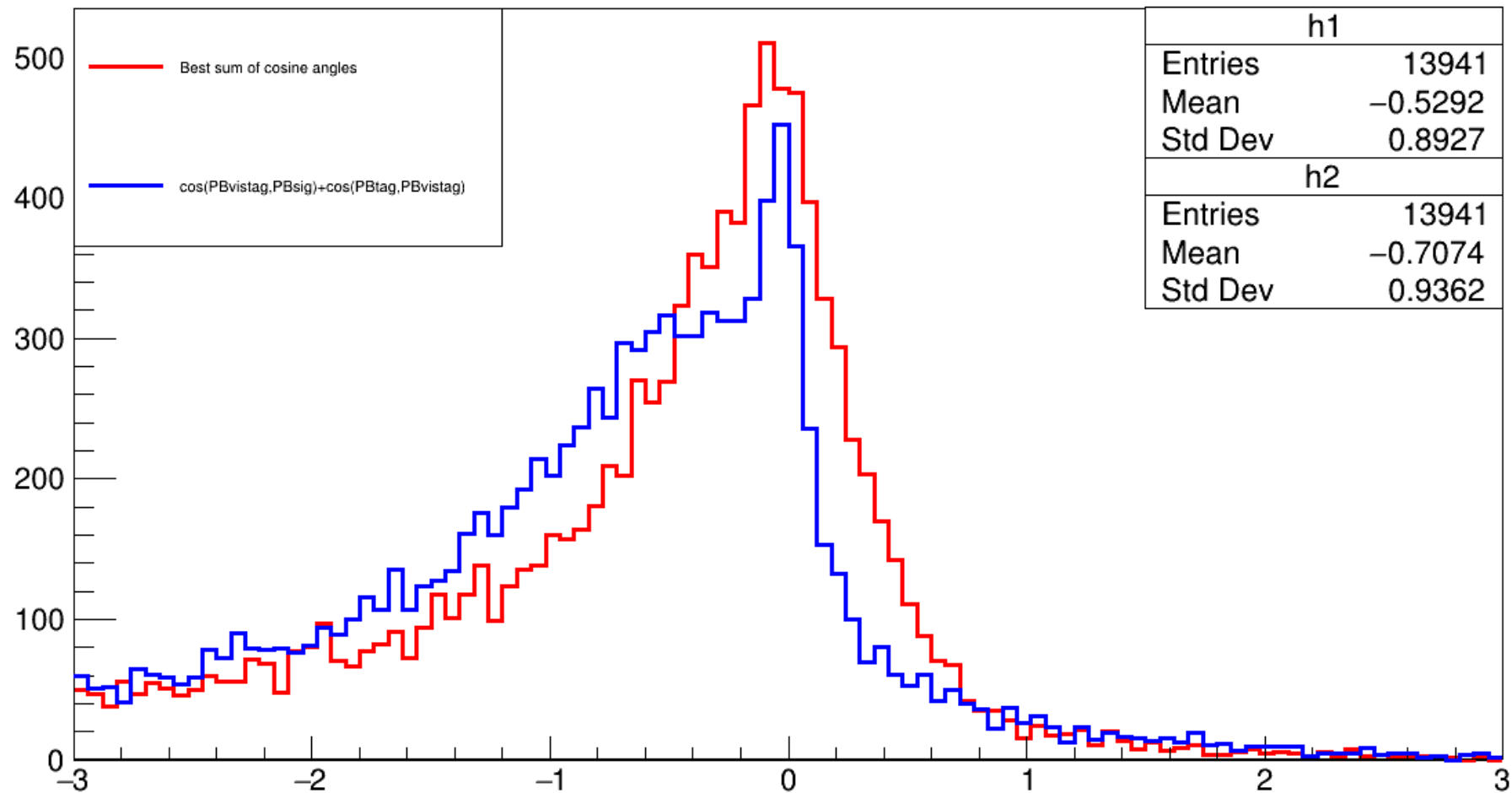
Best Sum of cosine angles, with rank1, Mbc_Bsig>5.27, -0.050<deltaE_Bsig<0.050, and abs(sin_phi)<1



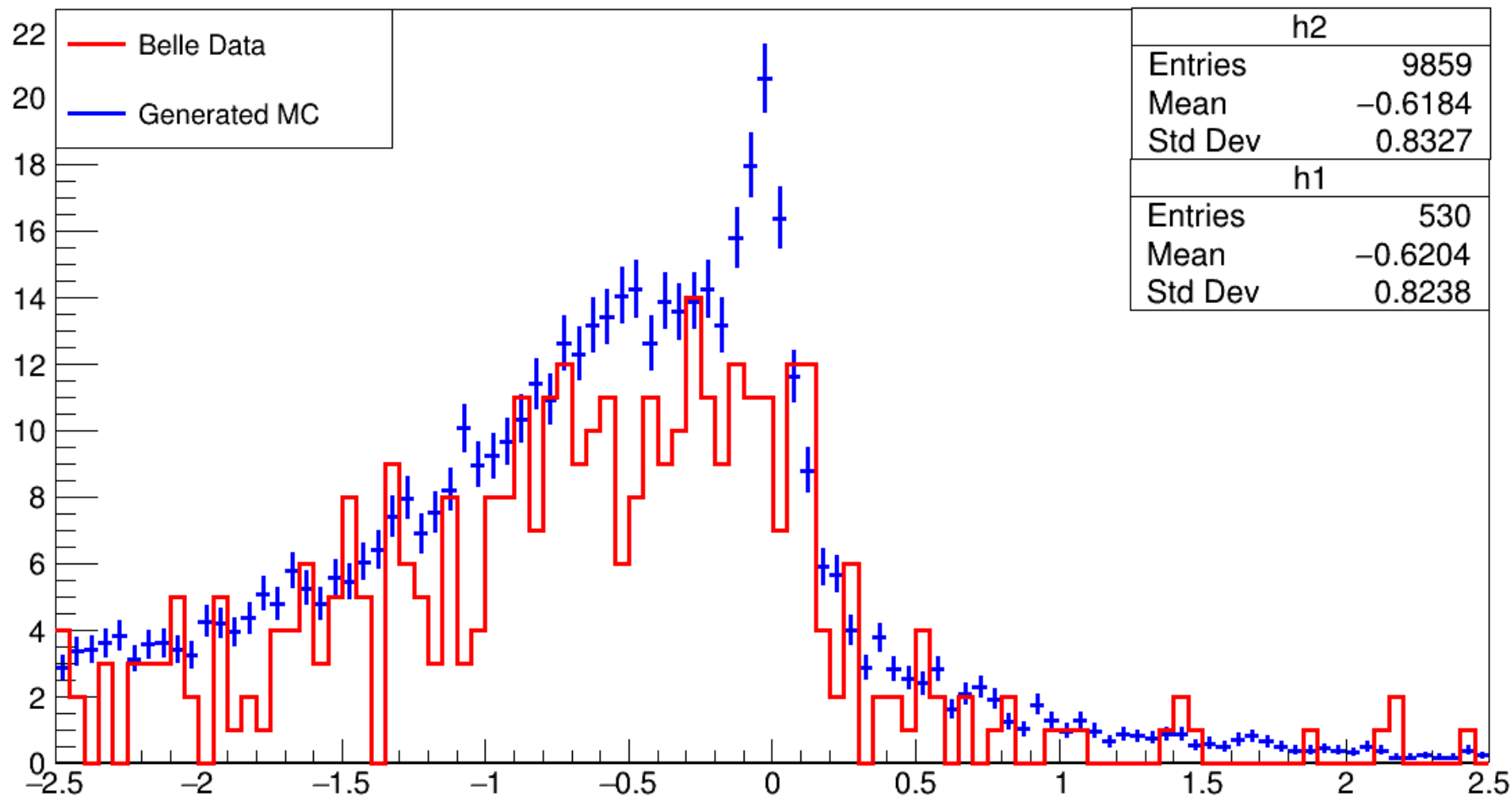
Belle data with rank1, $M_{bc_Bsig} > 5.27$, $-0.050 < \Delta E_{Bsig} < 0.050$ and $|\sin \phi| < 1$



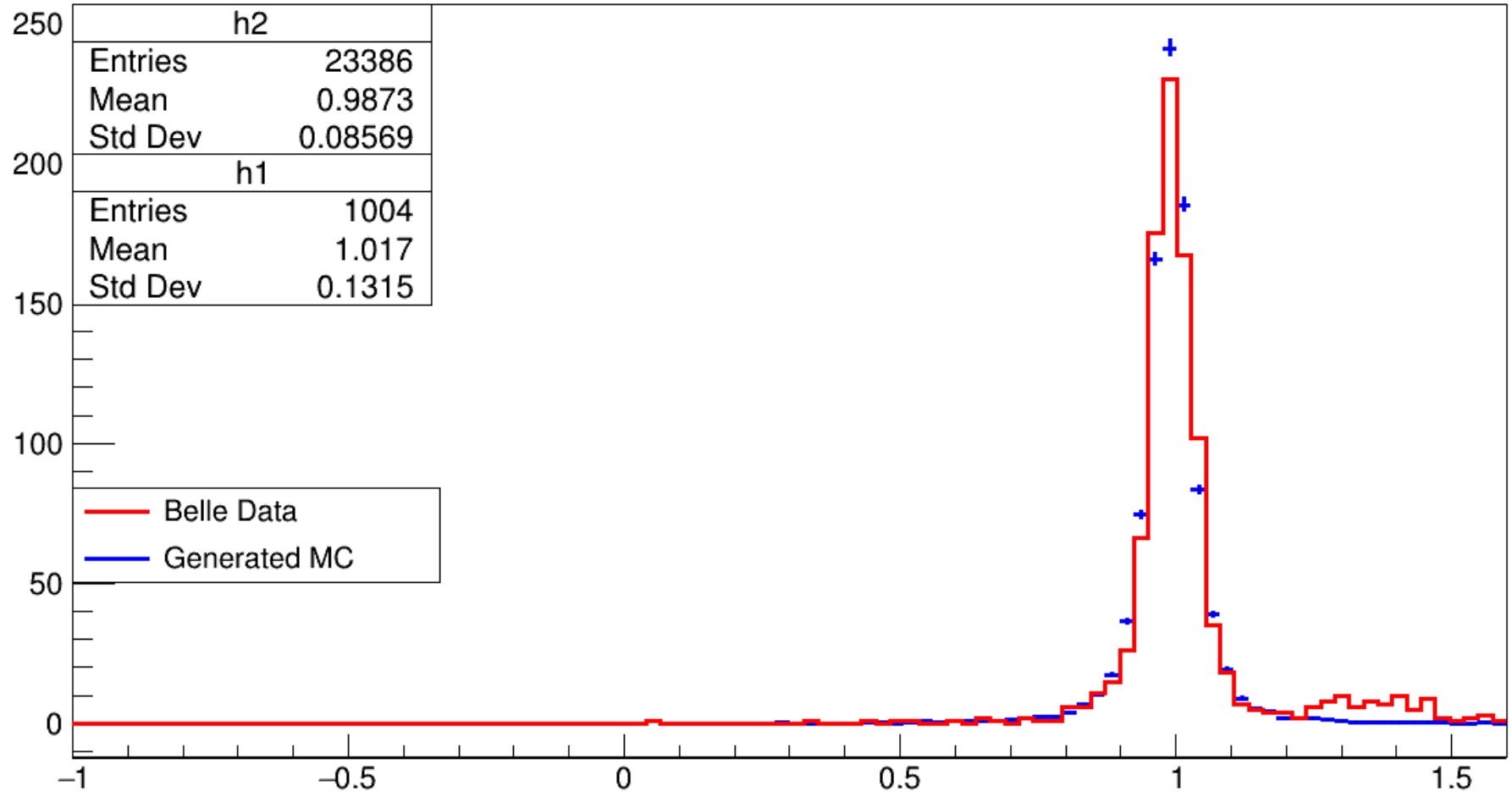
Generated MC with rank1, $Mbc_Bsig > 5.27$, $-0.050 < \Delta E_Bsig < 0.050$ and $|\sin \phi| < 1$



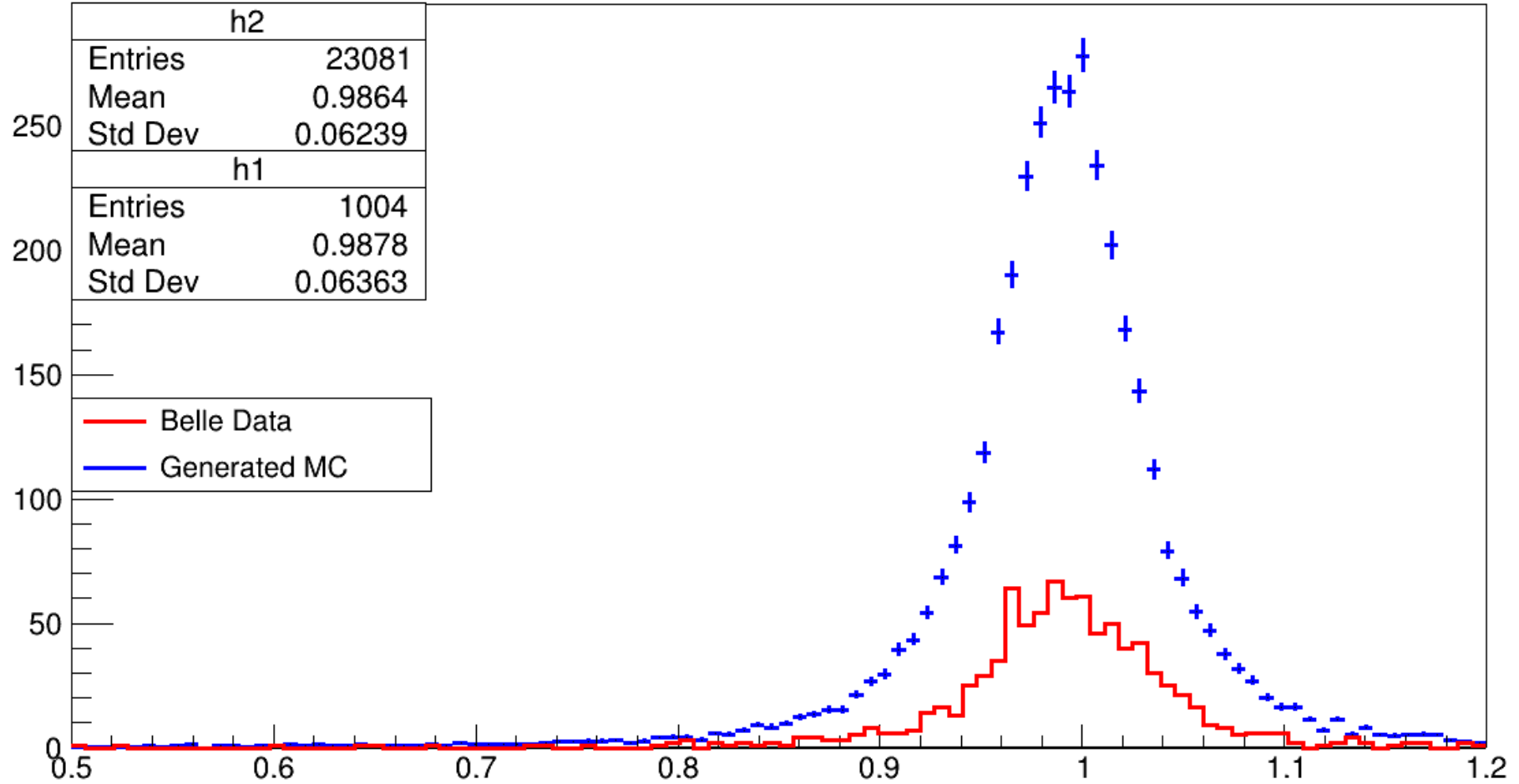
$\cos(\text{PBvistag}, \text{PBsig}) + \cos(\text{PBtag}, \text{PBvistag})$ with $\text{rank1}, \text{Mbc_Bsig} > 5.27, -0.050 < \text{deltaE_Bsig} < 0.050$ and $\text{abs}(\text{sin_phi}) < 1$



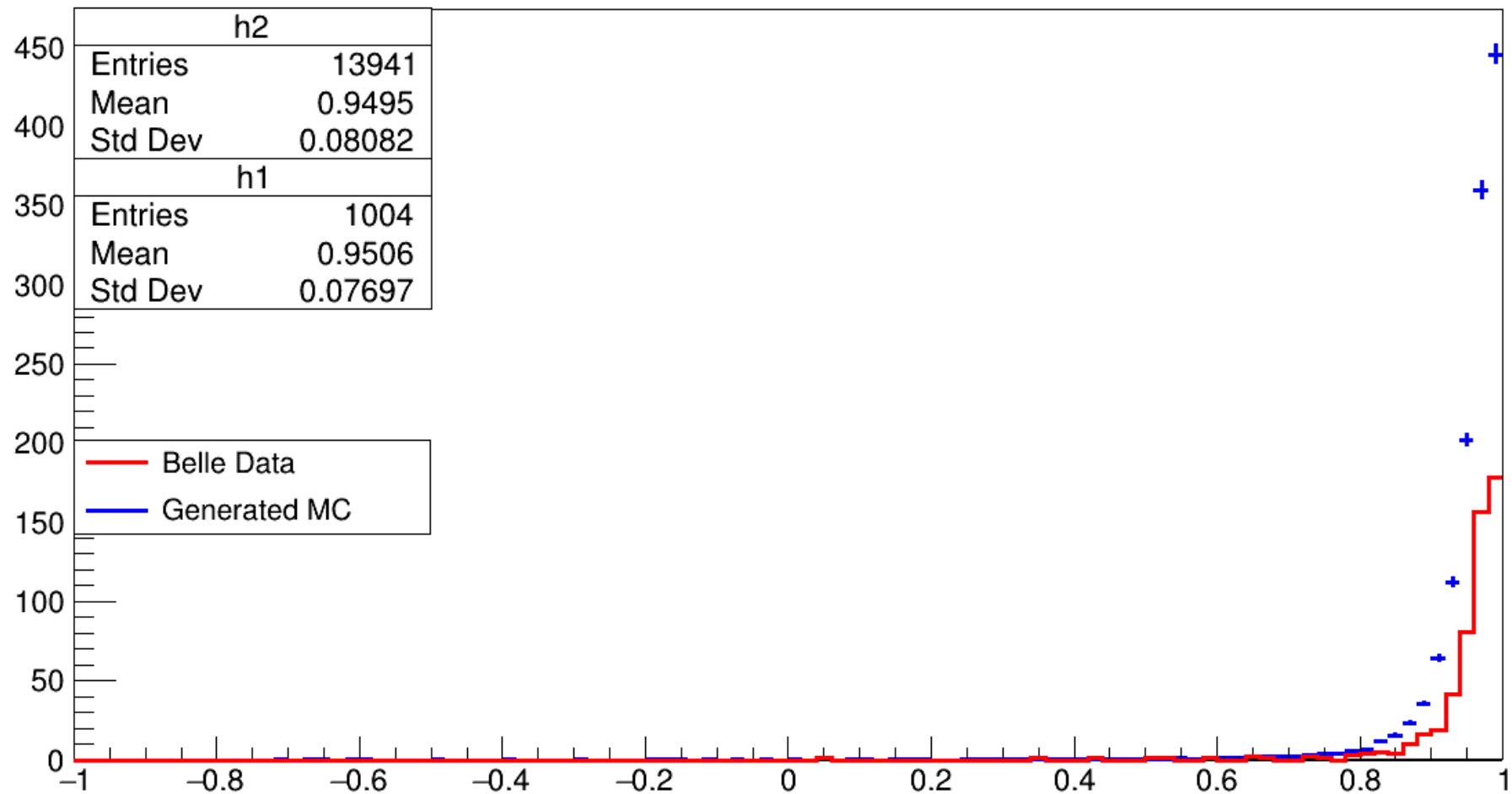
sin_phi with rank1, Mbc_Bsig > 5.27, -0.050 < deltaE_Bsig < 0.050



sin_phi with rank1, Mbc_Bsig>5.27, -0.050<deltaE_Bsig<0.050



sin_phi with rank1, Mbc_Bsig>5.27, -0.050<deltaE_Bsig<0.050



Number of photons with rank1, $M_{bc_Bsig} > 5.27, -0.050 < \Delta E_{Bsig} < 0.050$ and $|\sin \phi| < 1$

