

Belle data update

All experiments of Belle

21 Dec. 2023

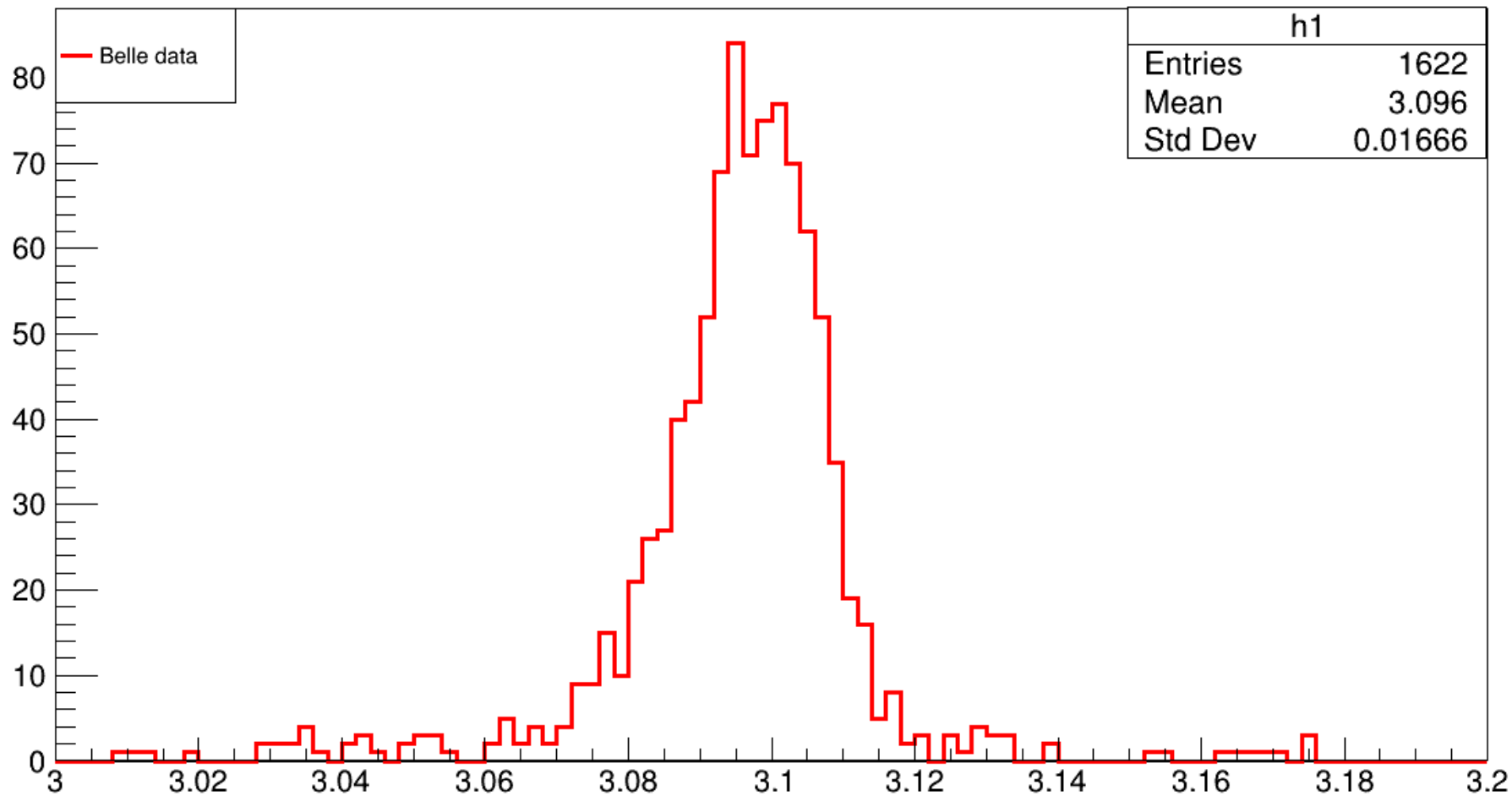
Cuts in the reconstruction program

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

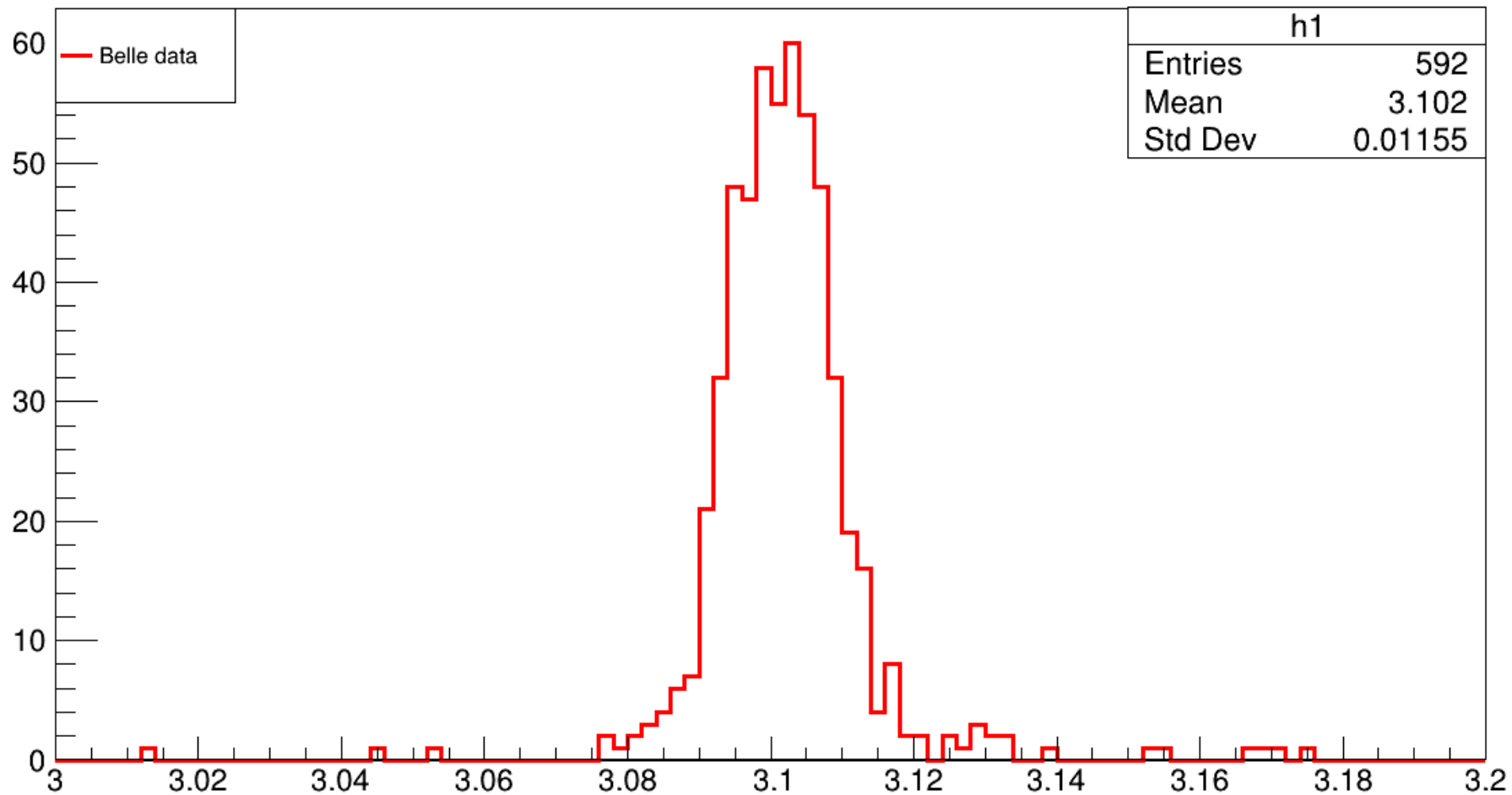
Signal side cuts (root level)

- $M_{bc_Bsig} > 5.2 \text{ GeV}$
- $-0.15 < \Delta E_{Bsig} < 0.40 \text{ GeV}$
- $Y_{incl_rank_all} = 1$
- If other cuts are applied they are mentioned in the title of the plots.

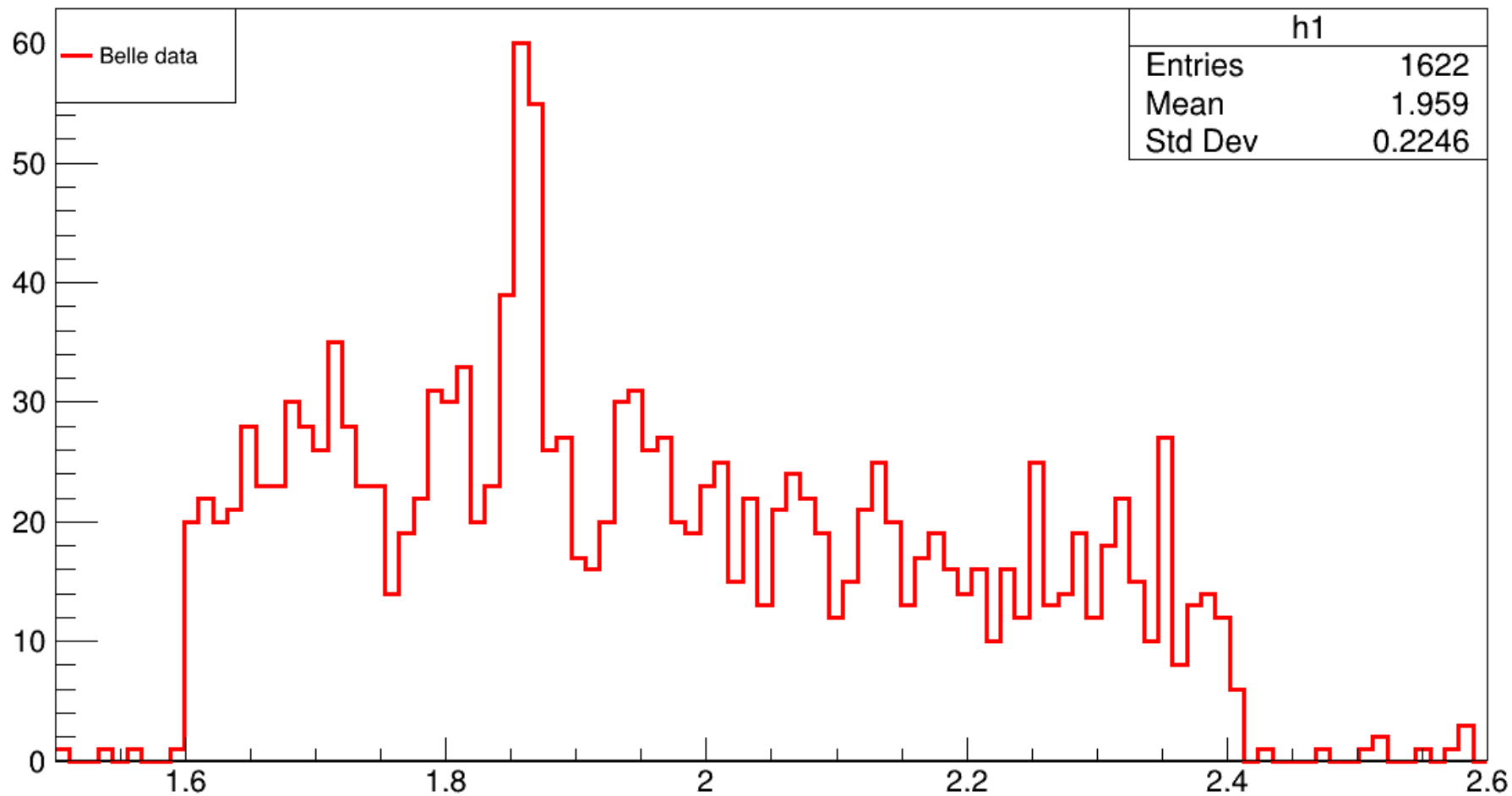
m_Jpsi



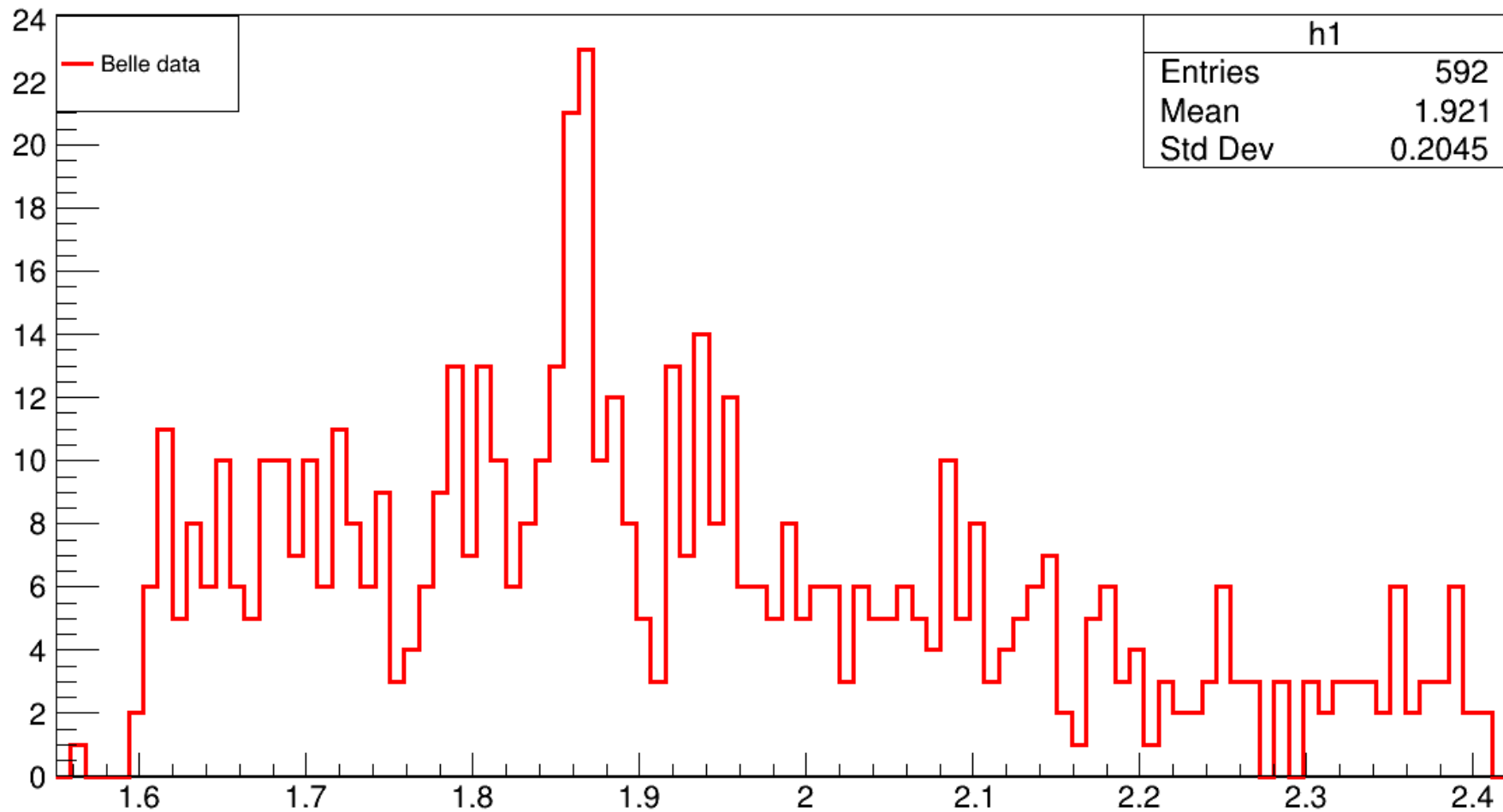
$m_{J\psi}$ with $|\sin\phi| < 1$



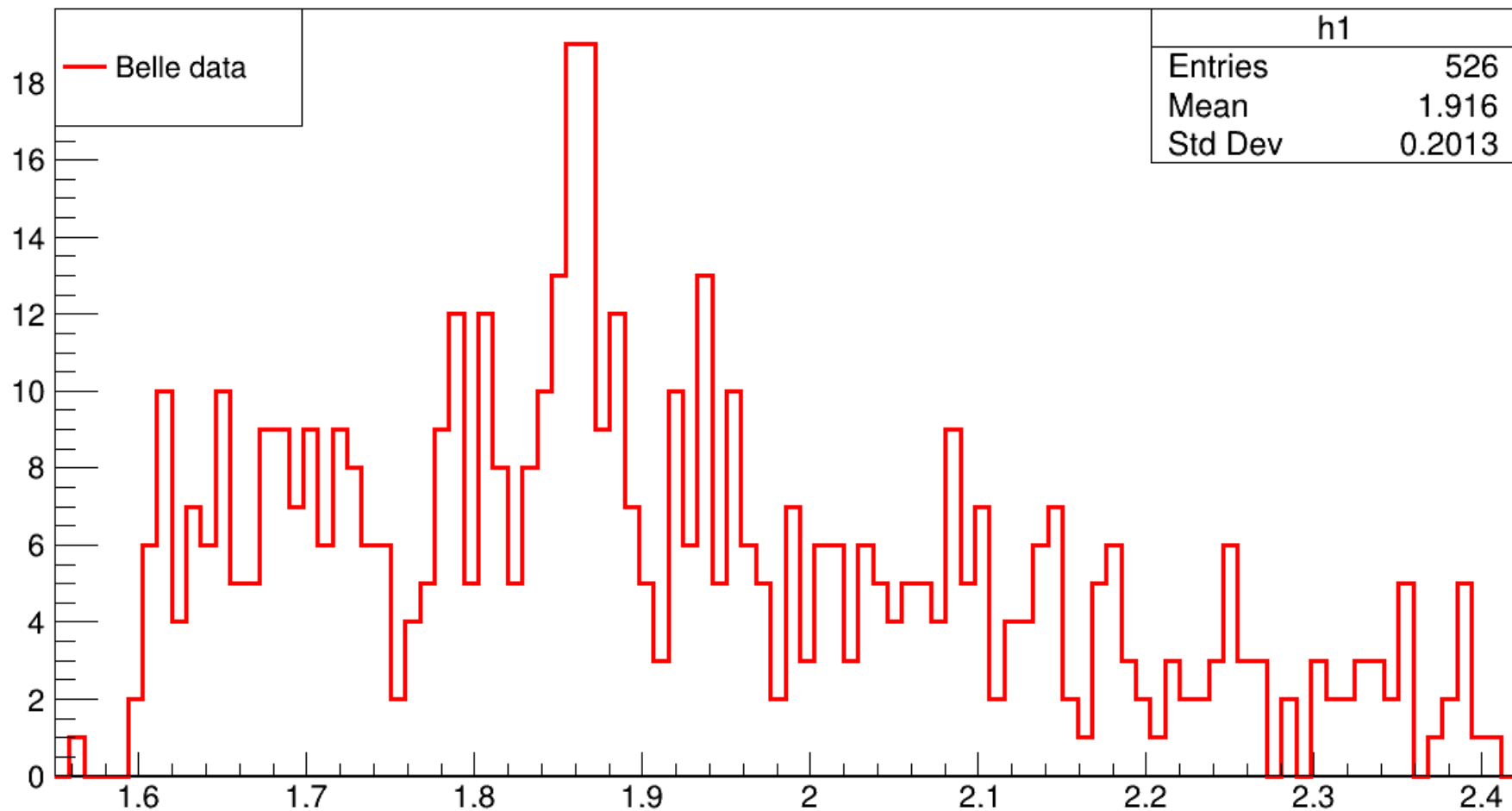
m_hadROE



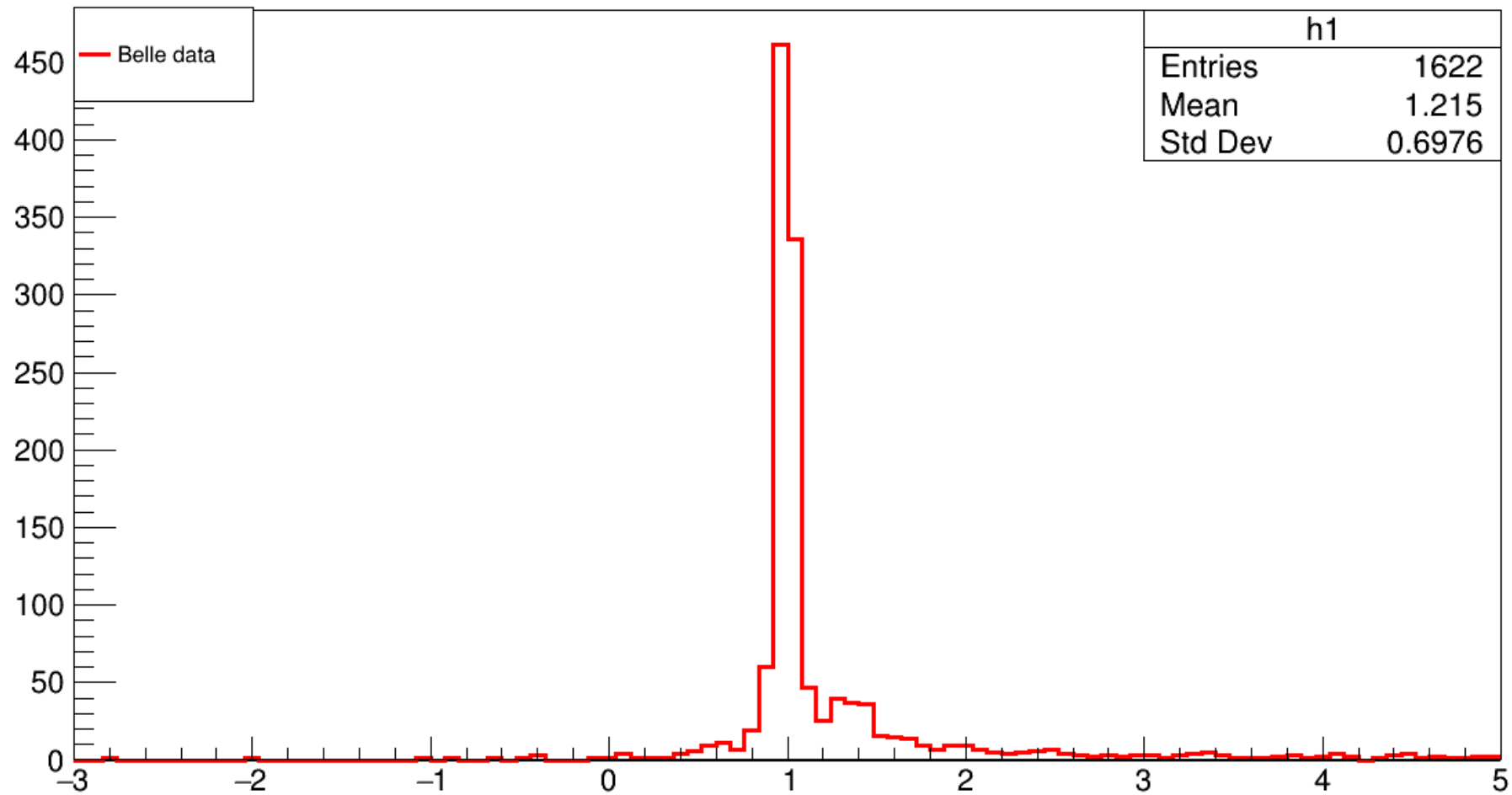
m_hadROE with $\text{abs}(\sin_\phi) < 1$



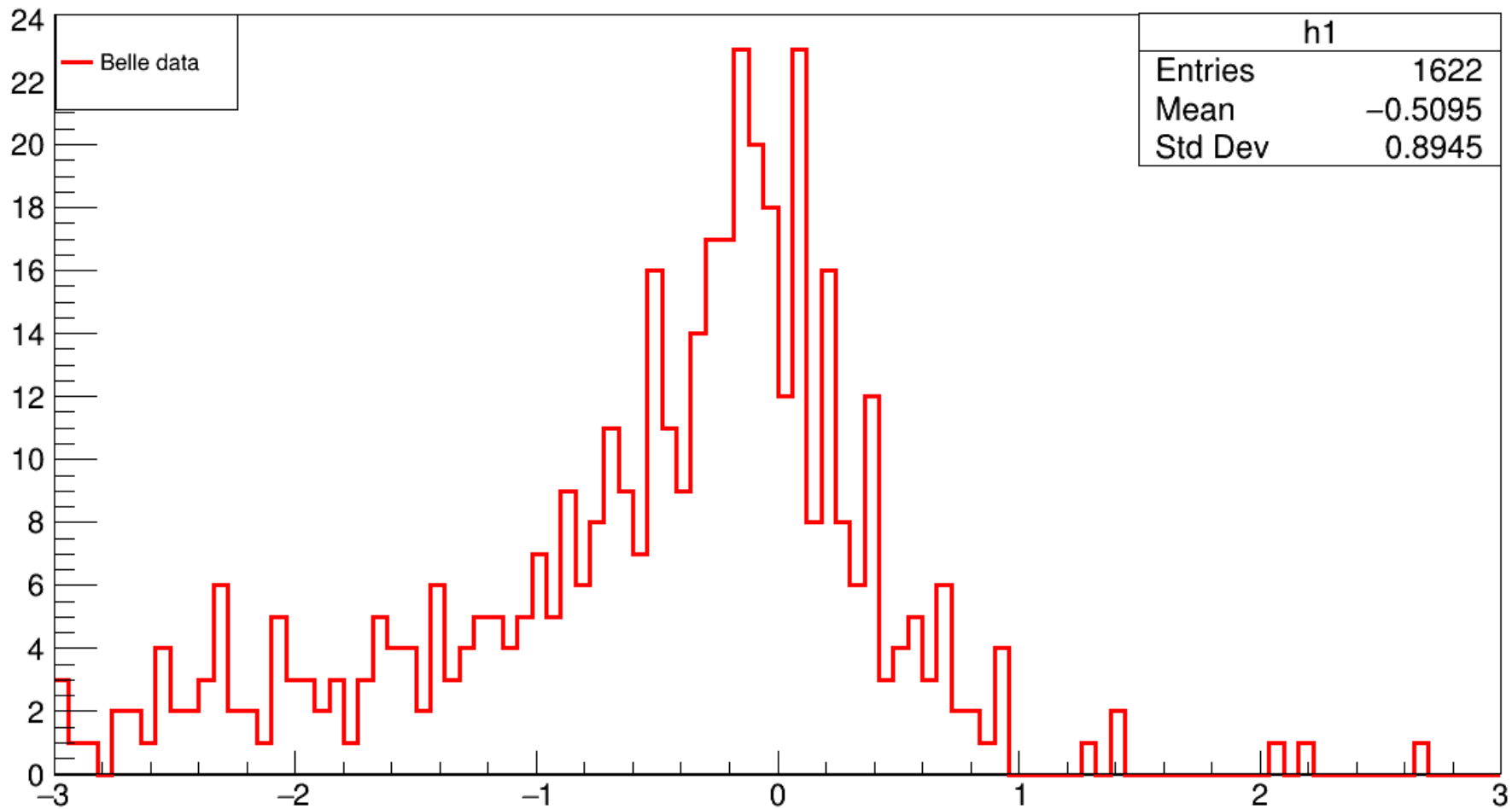
m_hadROE with $|\sin\phi| < 1, |\cos\theta_{\psi} - 3.1| < 0.02$



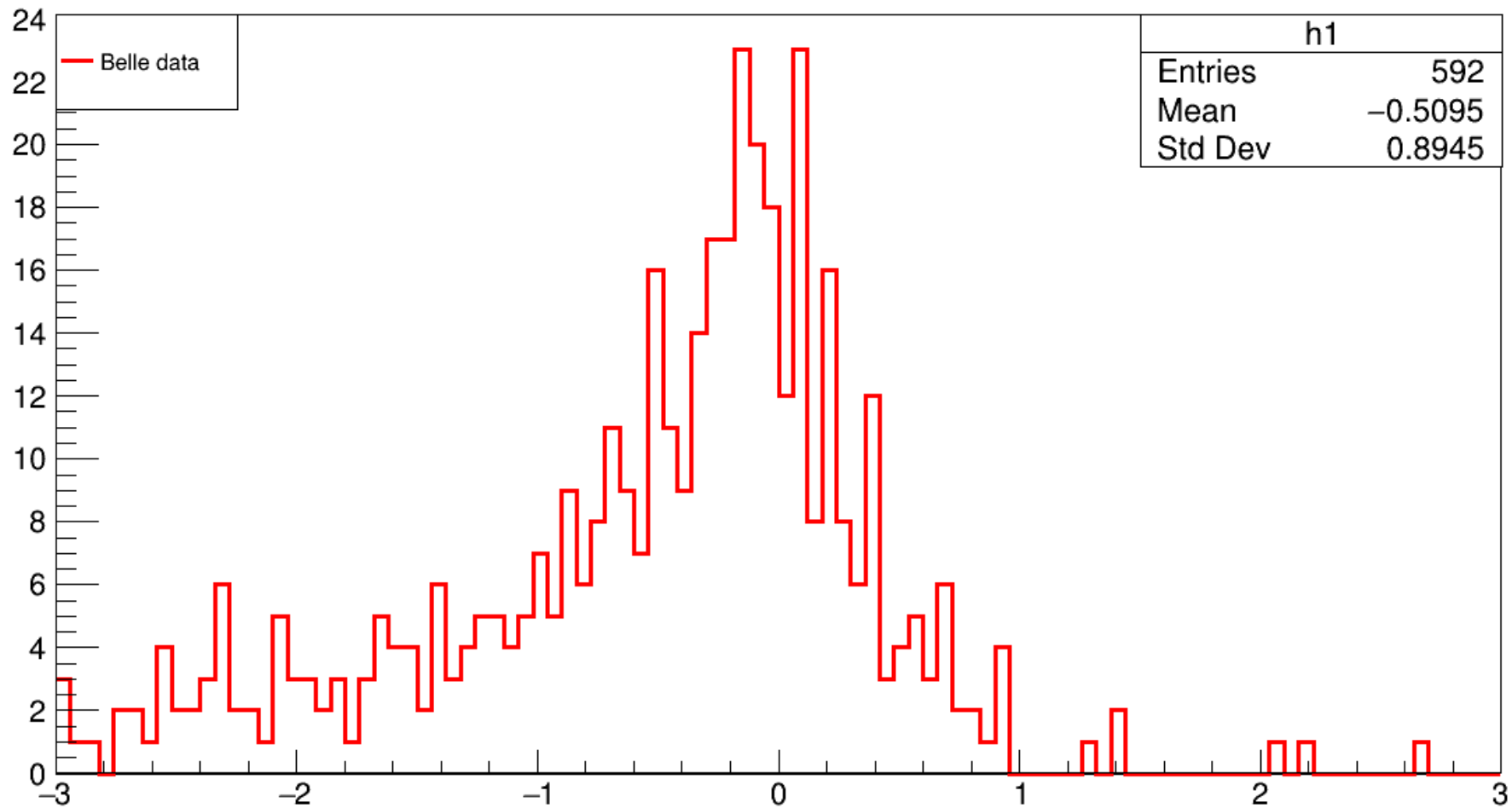
sin_phi



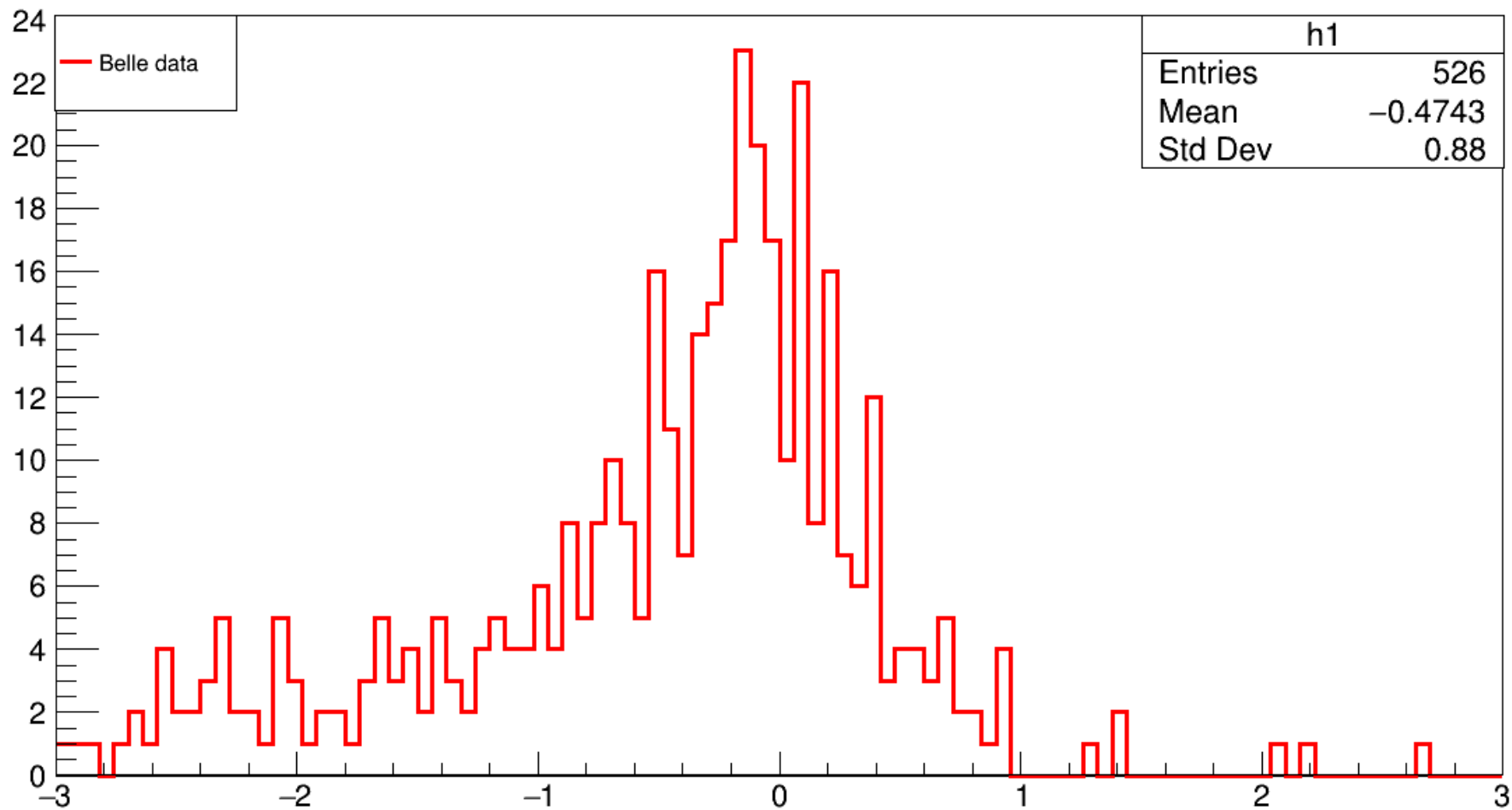
Best sum of cosine angles



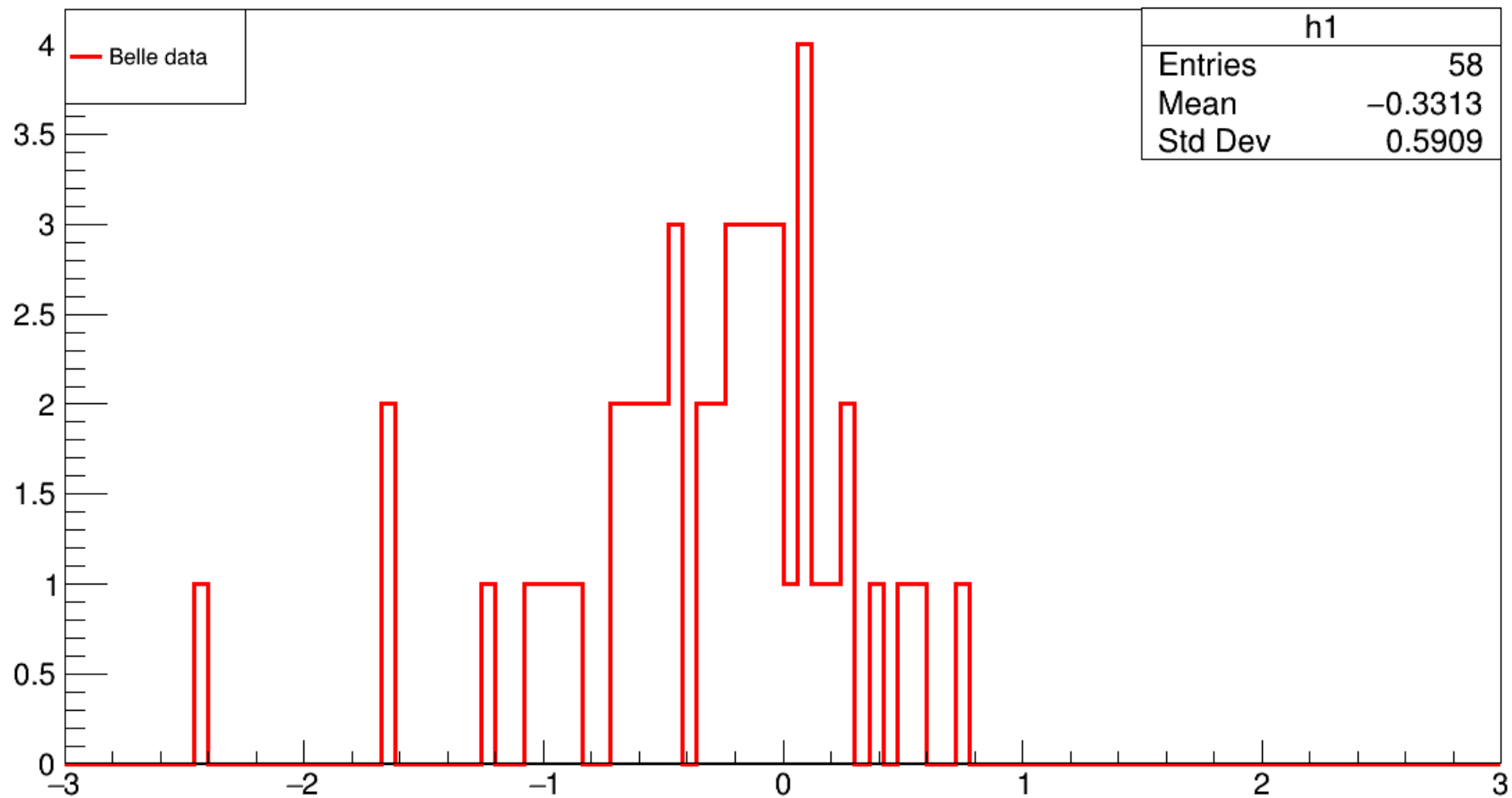
Best sum of cosine angles with $\text{abs}(\sin_phi) < 1$



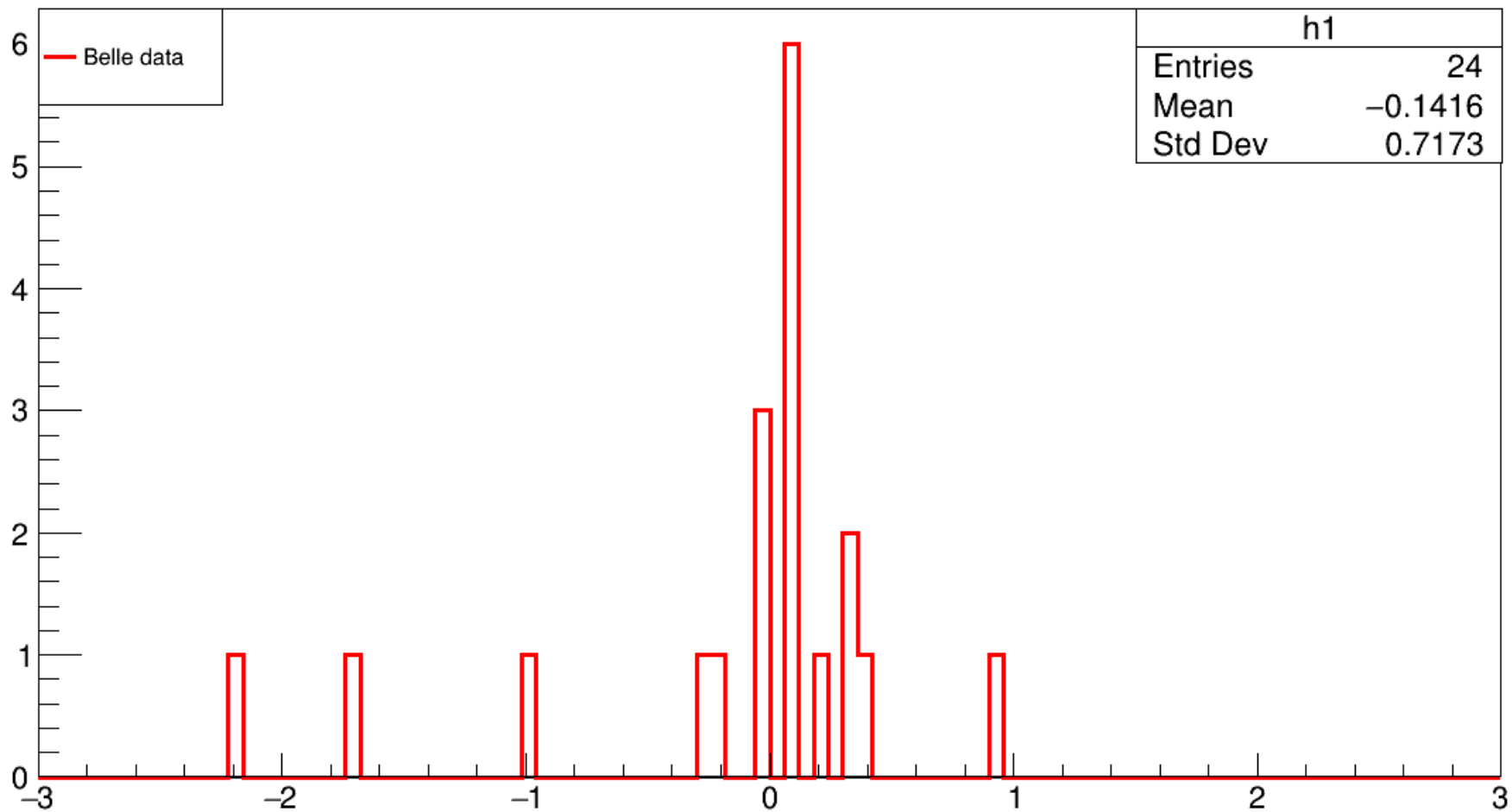
Best sum of cosine angles with $abs(sin_phi) < 1, abs(m_Jpsi - 3.1) < 0.02$



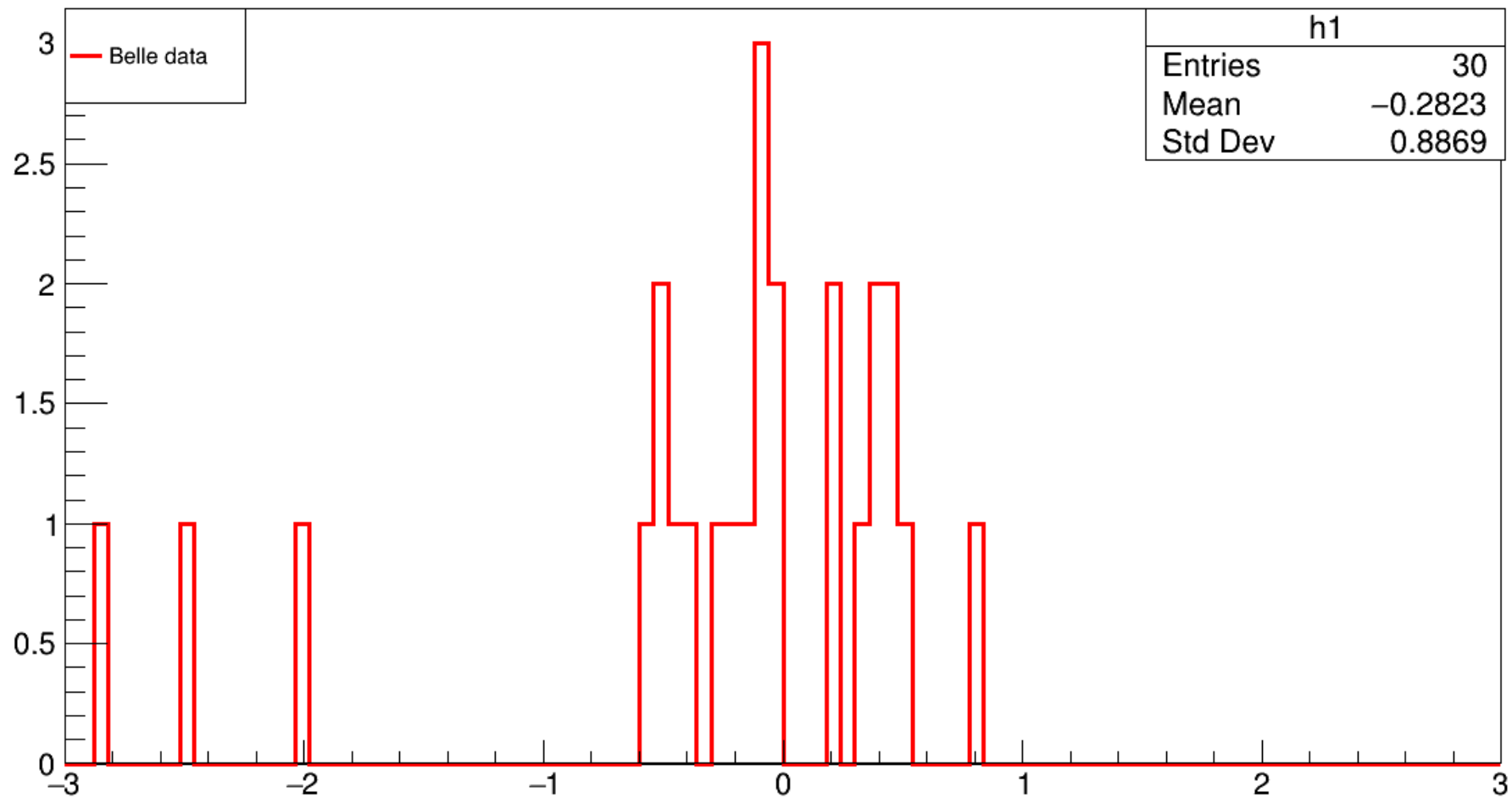
Best sum of cosine angles with $|\sin\phi| < 1, |m_{J\psi} - 3.1| < 0.02, |m_D - 1.86| < 0.015$



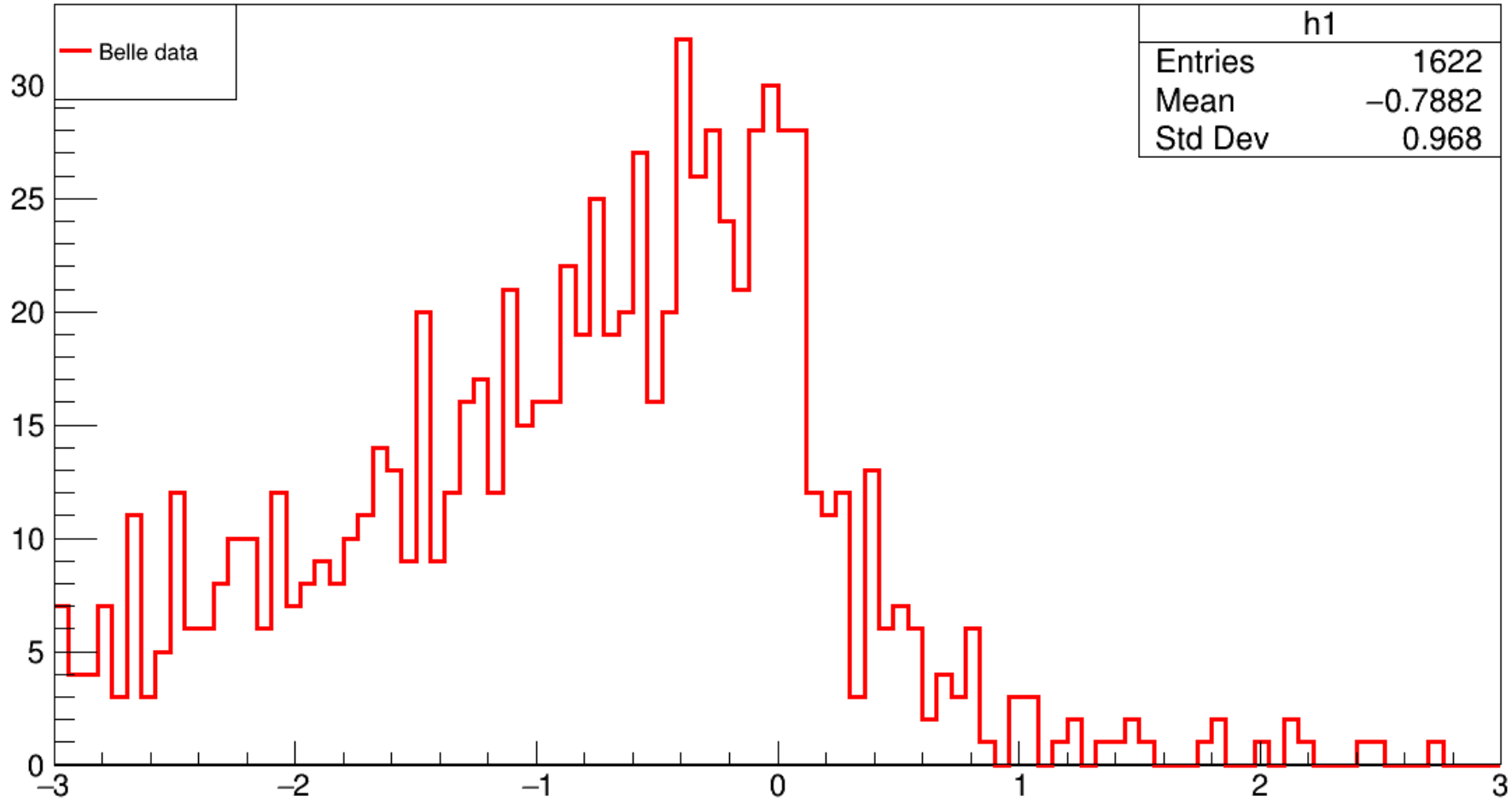
Best sum of cosine angles with $abs(sin_phi)<1,abs(m_Jpsi-3.1)<0.02,abs(m_D-2.006)<0.02$



Best sum of cosine angles with $|\sin\phi| < 1, |m_{J\psi} - 3.1| < 0.02, |m_D - 1.96| < 0.02$

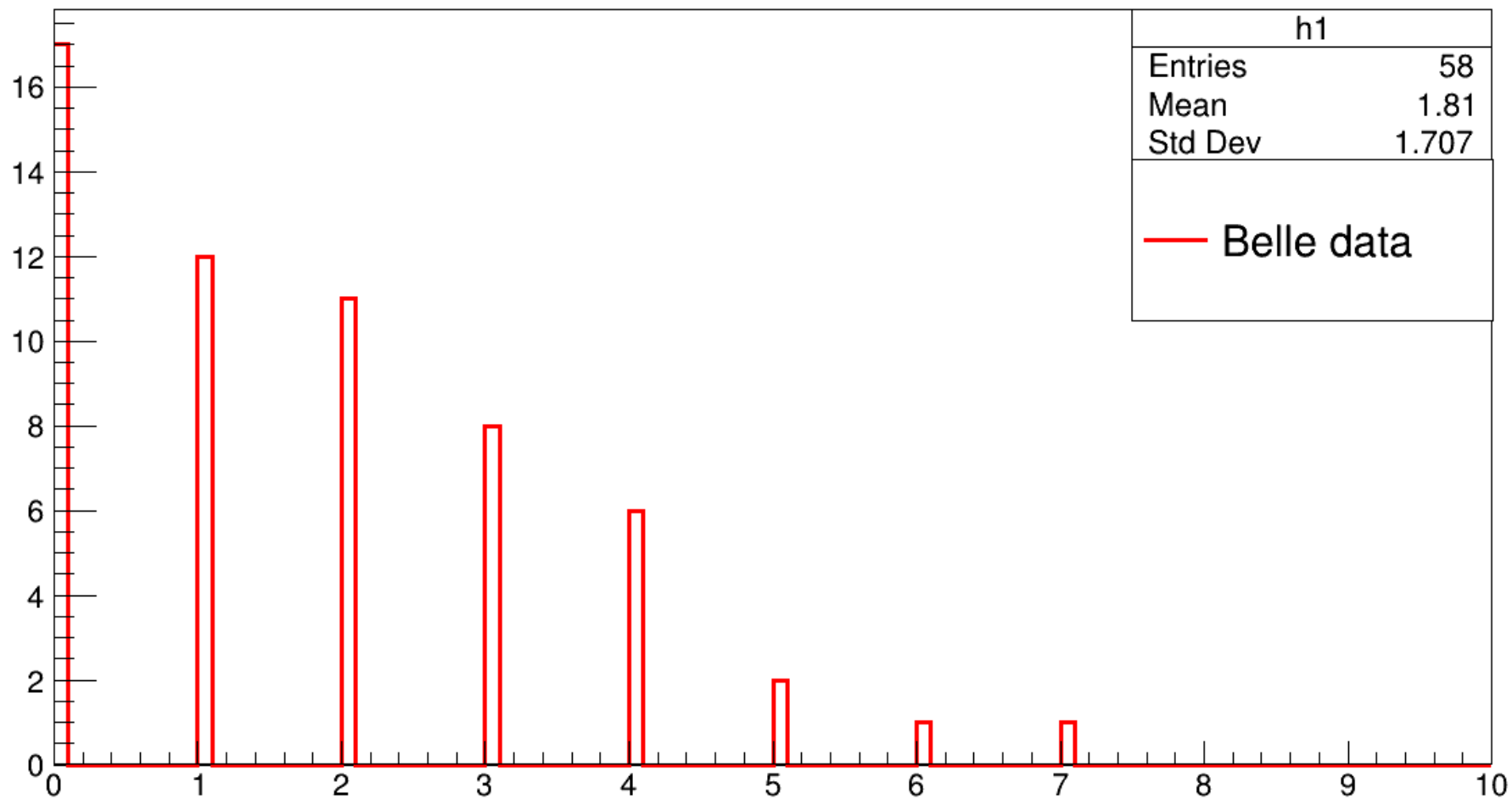


Sum of cosine angle(Bsig momentum and visible momentum on tag side) and cosine angle on tag side

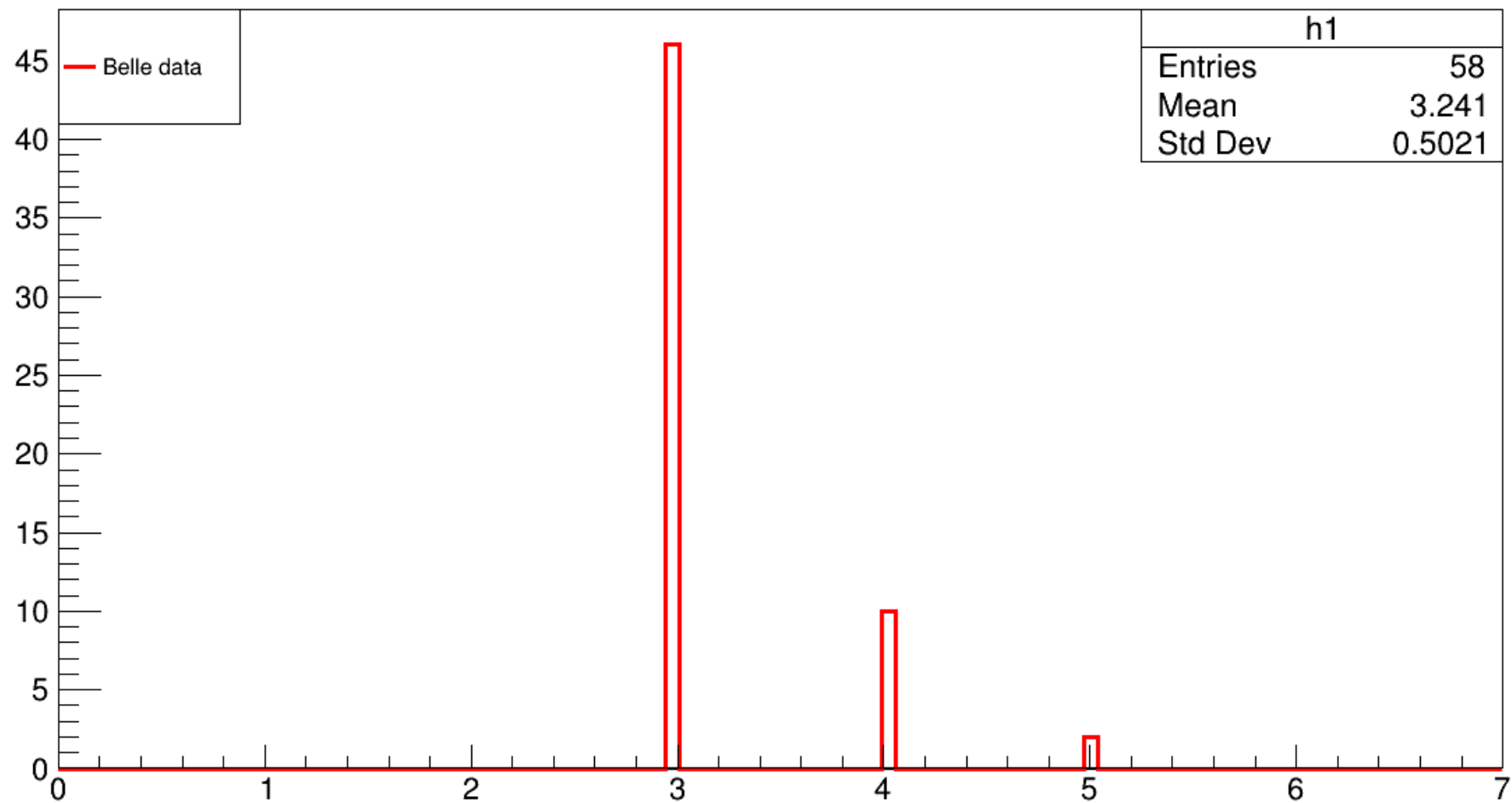


Back up

nPhotonsSelected abs(sin_phi)<1,abs(m_Jpsi-3.1)<0.02,abs(m_D-1.86)<0.015



nLepton $abs(sin_phi)<1,abs(m_Jpsi-3.1)<0.02,abs(m_D-1.86)<0.015$



Number of candidates(Rank)

