

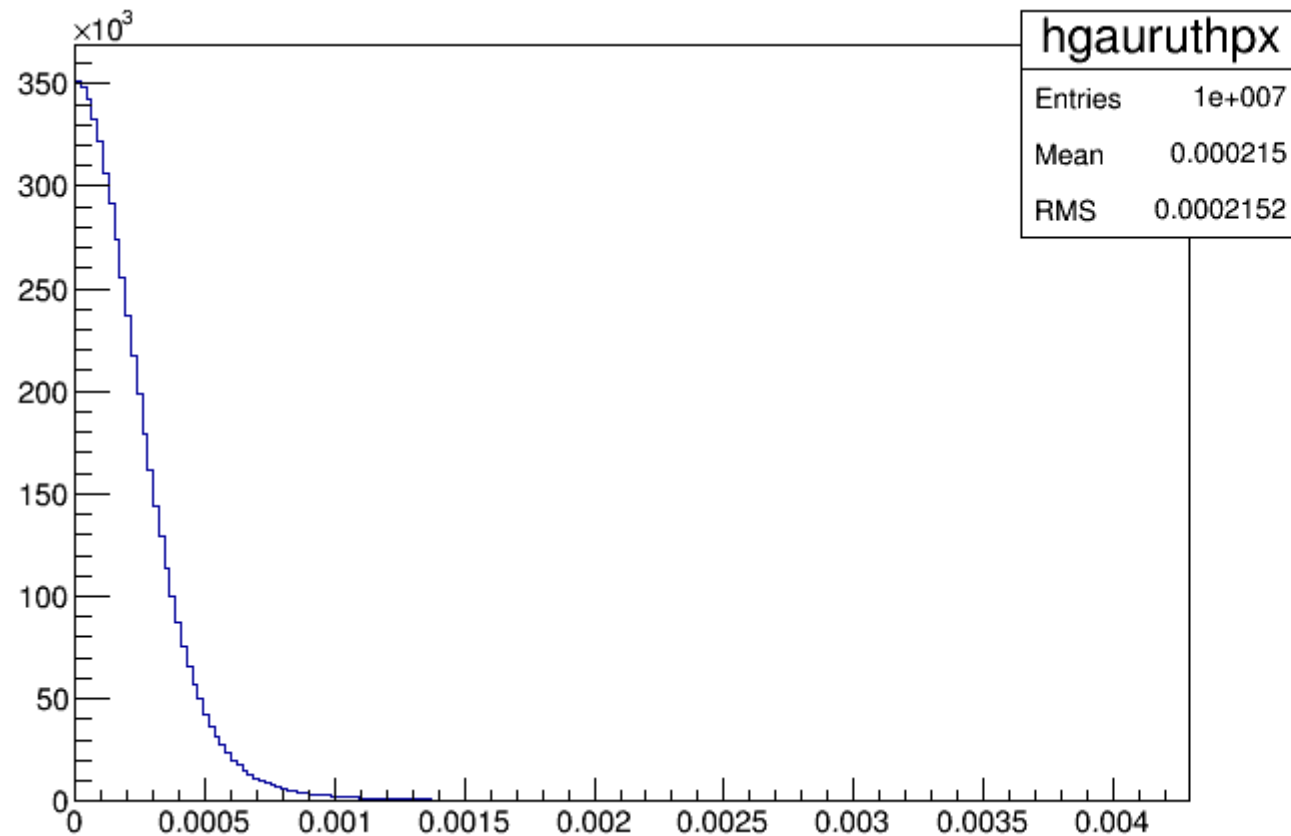
# Basic Tests

Josiah D. Kunz

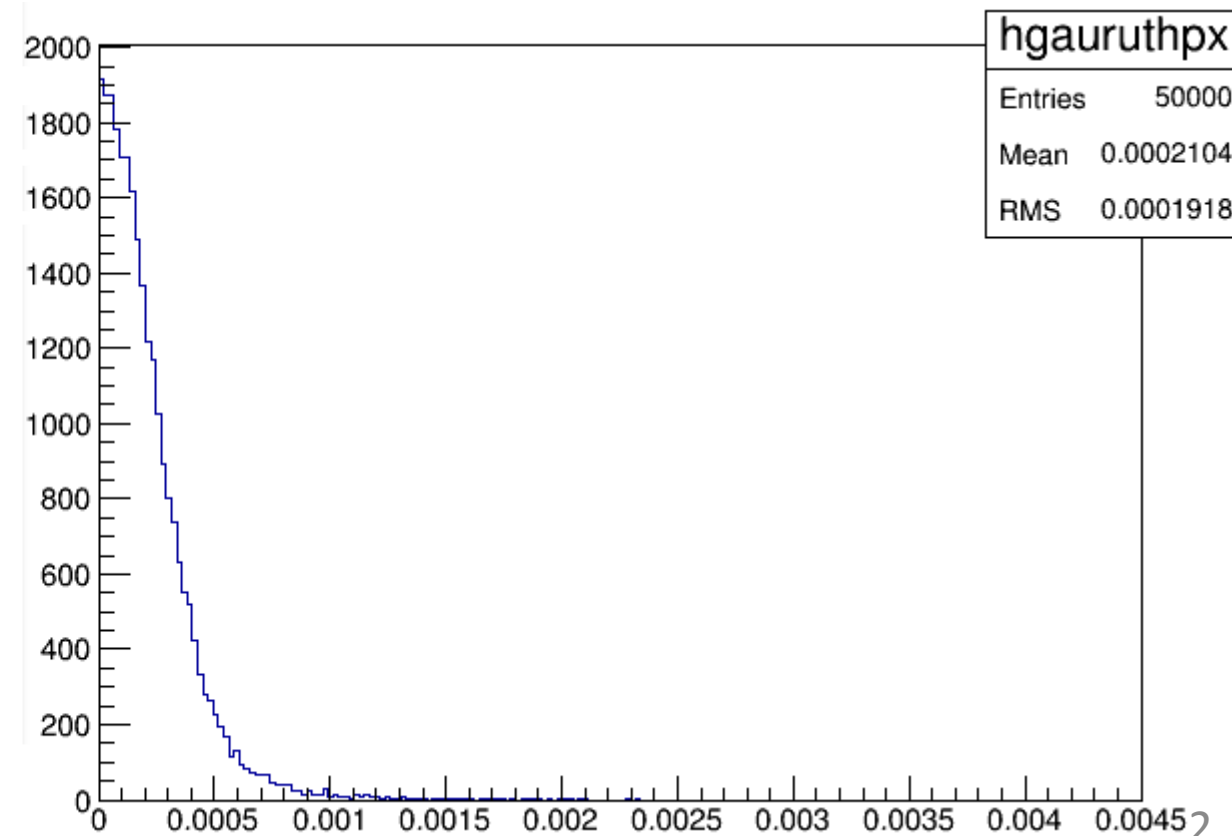
06.23.14

# Functional Test: 1 cm (Transverse)

ICOOOL data (10M particles)

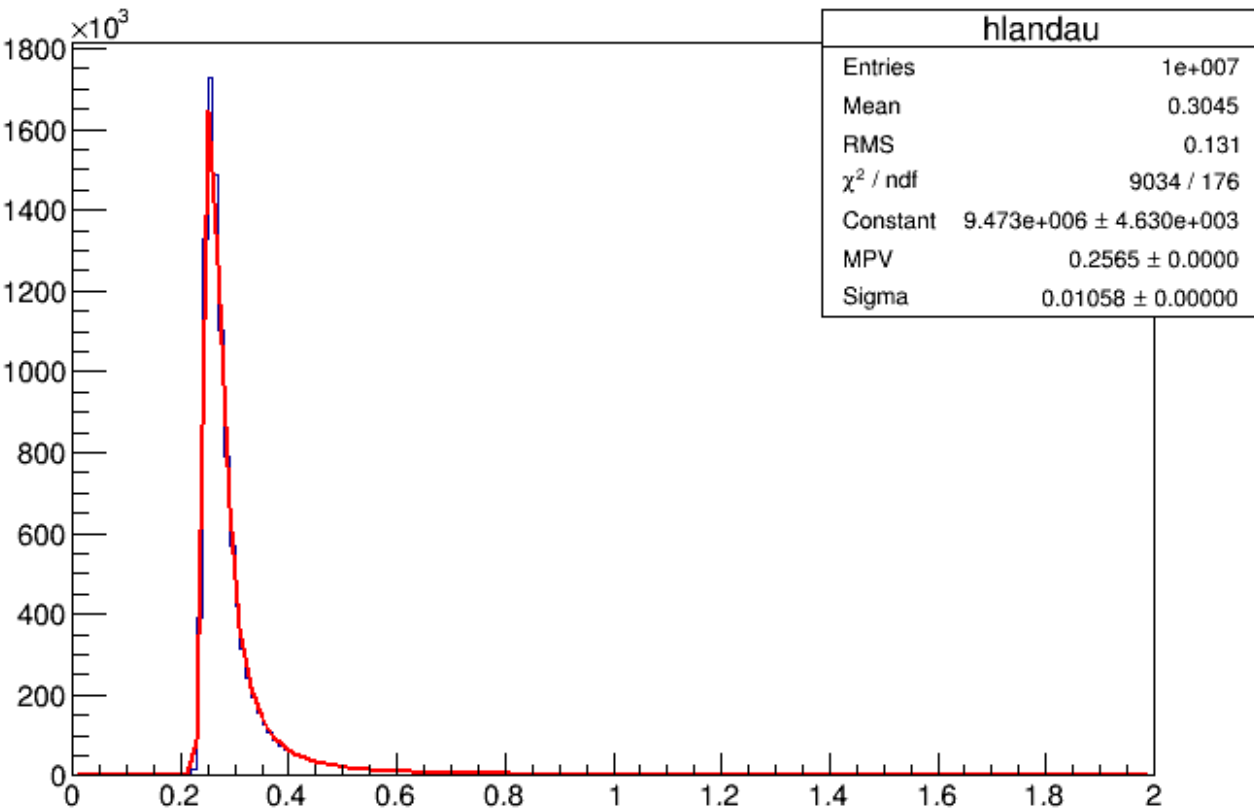


COSY data (50k particles)

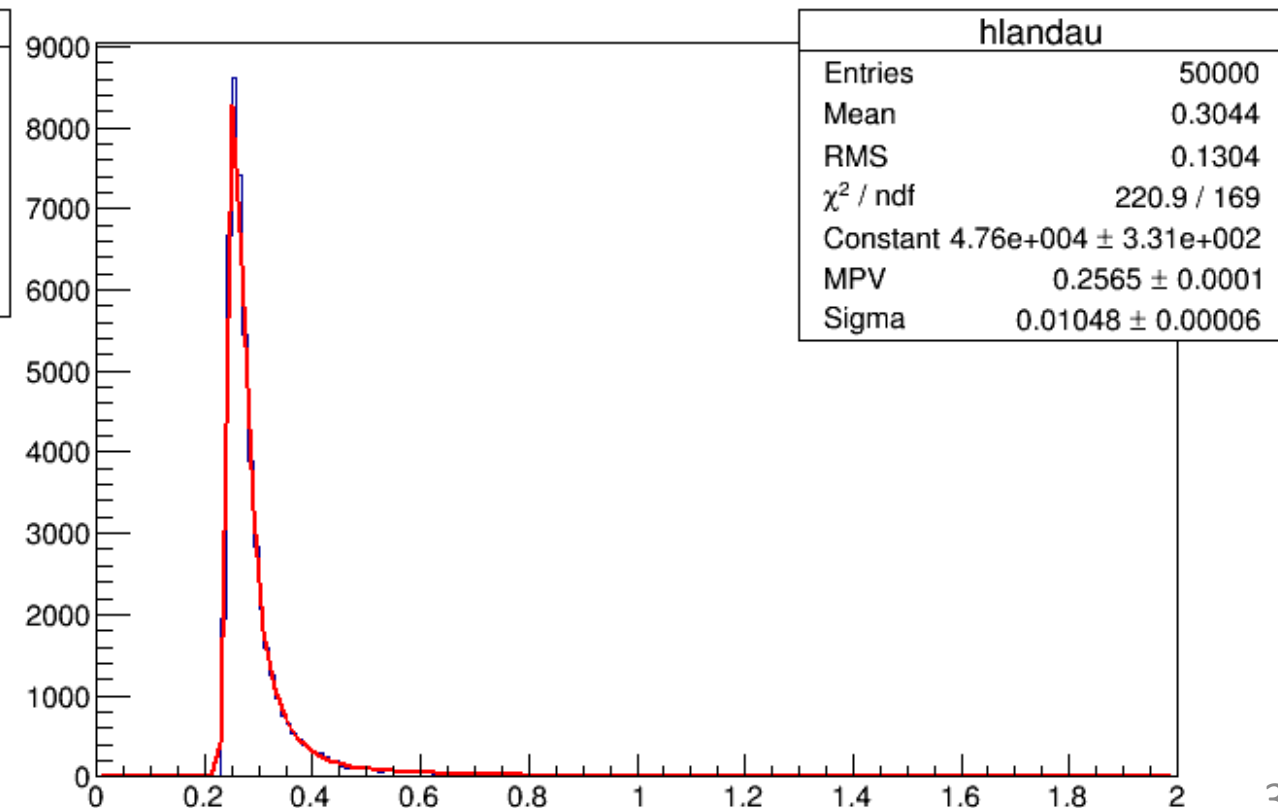


# Functional Test: 1 cm (Longitudinal)

ICOOOL data (10M particles)



COSY data (50k particles)



# NERSC Results

- Bivariate parameter fit for the Landau  $\alpha$ ,  $\beta$ :

$$\alpha(E_i, L) = [a_2 E_i^2 + a_1 E_i + a_0] L + [b_2 E_i^2 + b_1 E_i + b_0],$$

i.e. linear in  $L$  and quadratic in  $E_i$ .

- Similar form for  $\beta$ .
- No such parameterization for transverse coordinates yet...
  - Trouble with consistency

# Functional Test: 10 cm

- Transverse [left] looks good (despite the lack of parameterization).
- Longitudinal [right] is missing something (open to suggestions).

