

Double bang fit

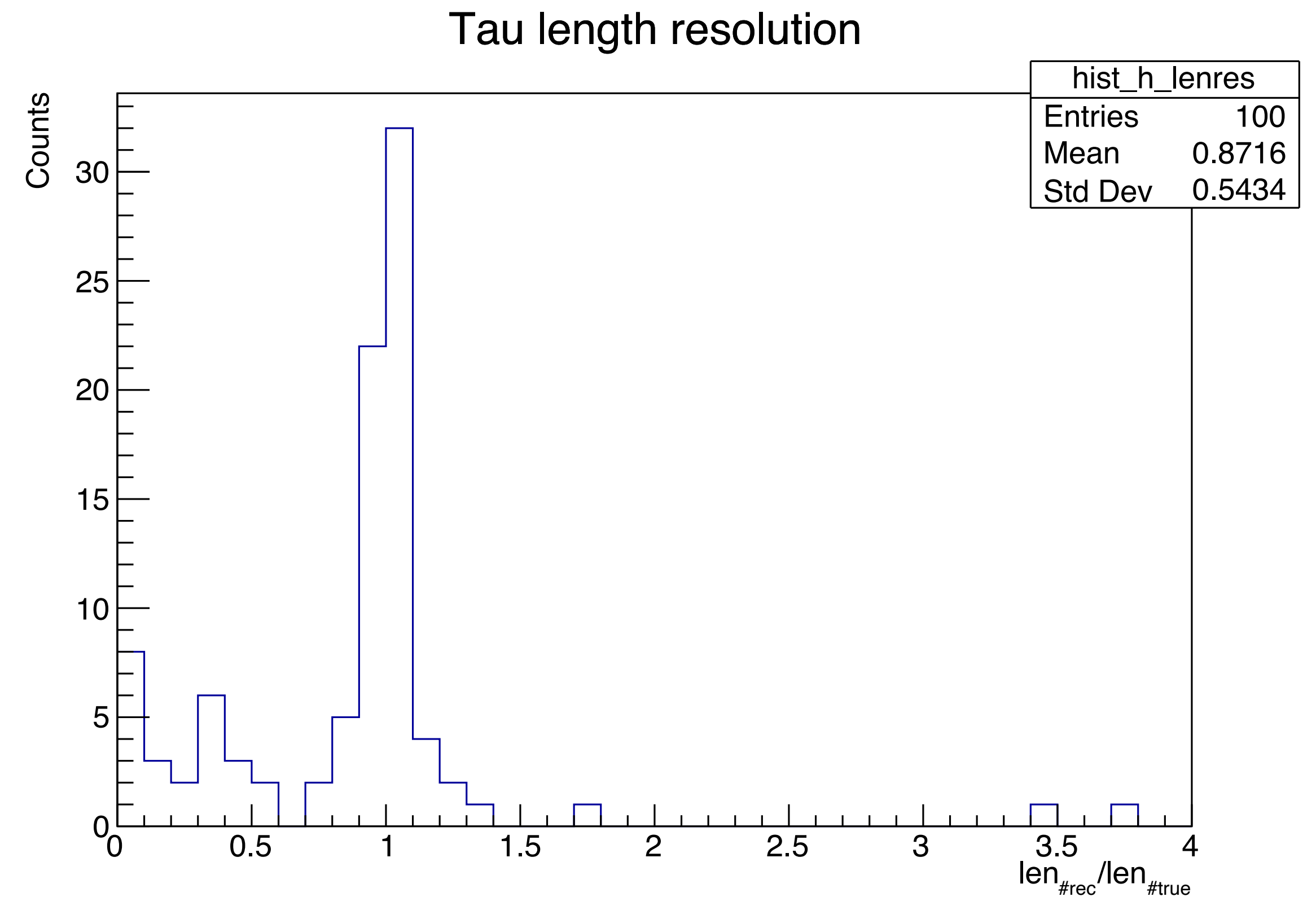
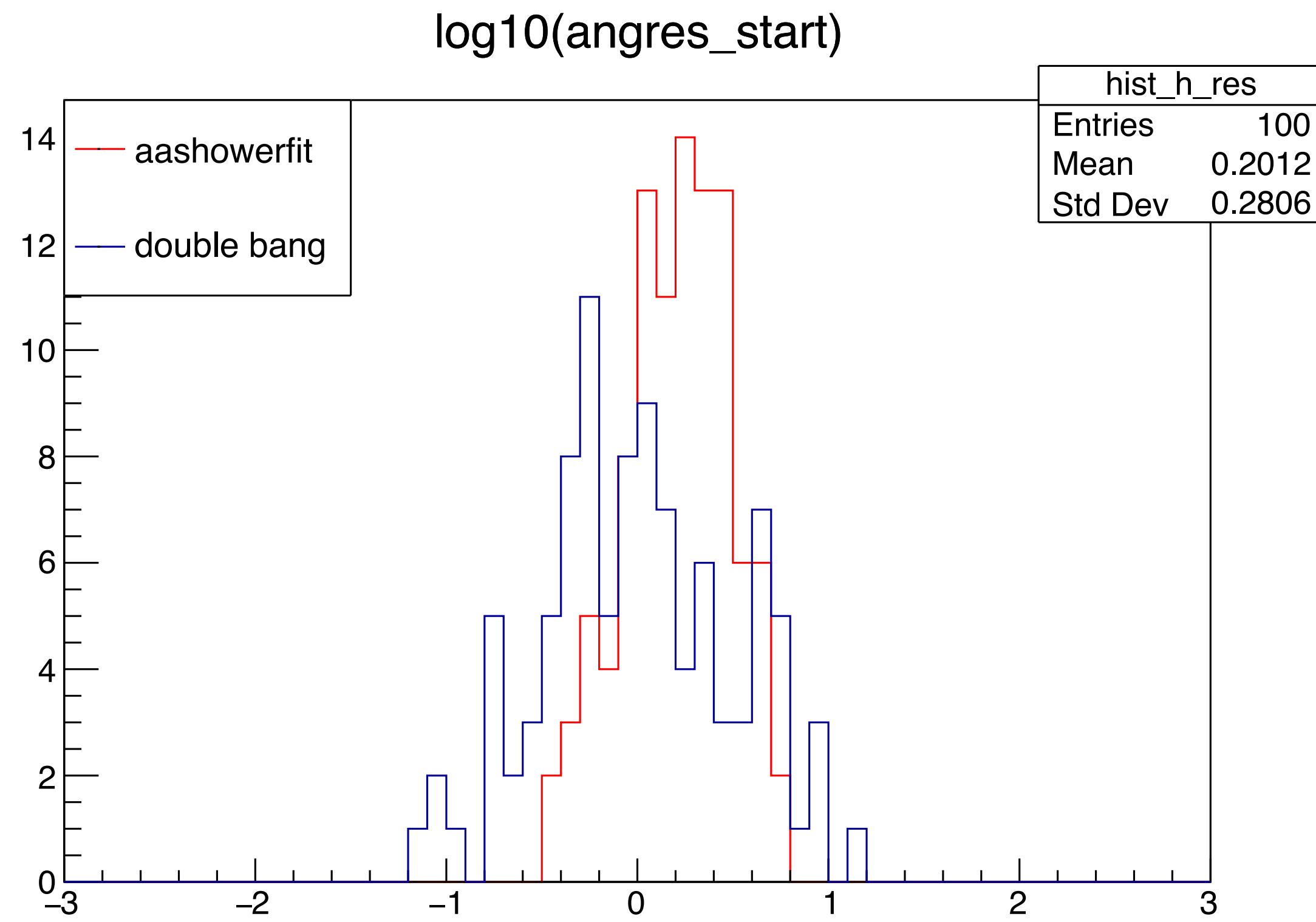
MC hits

Thijs van Eeden - 2021-01-28

Double bang fit

- MC hits
- Tau length > 10 m
- Take aashowerfit direction and vertex fit
- Prefit along direction to find shower 1 and shower 2 position
- Full likelihood fit (time information only!)
- True energy of both showers used

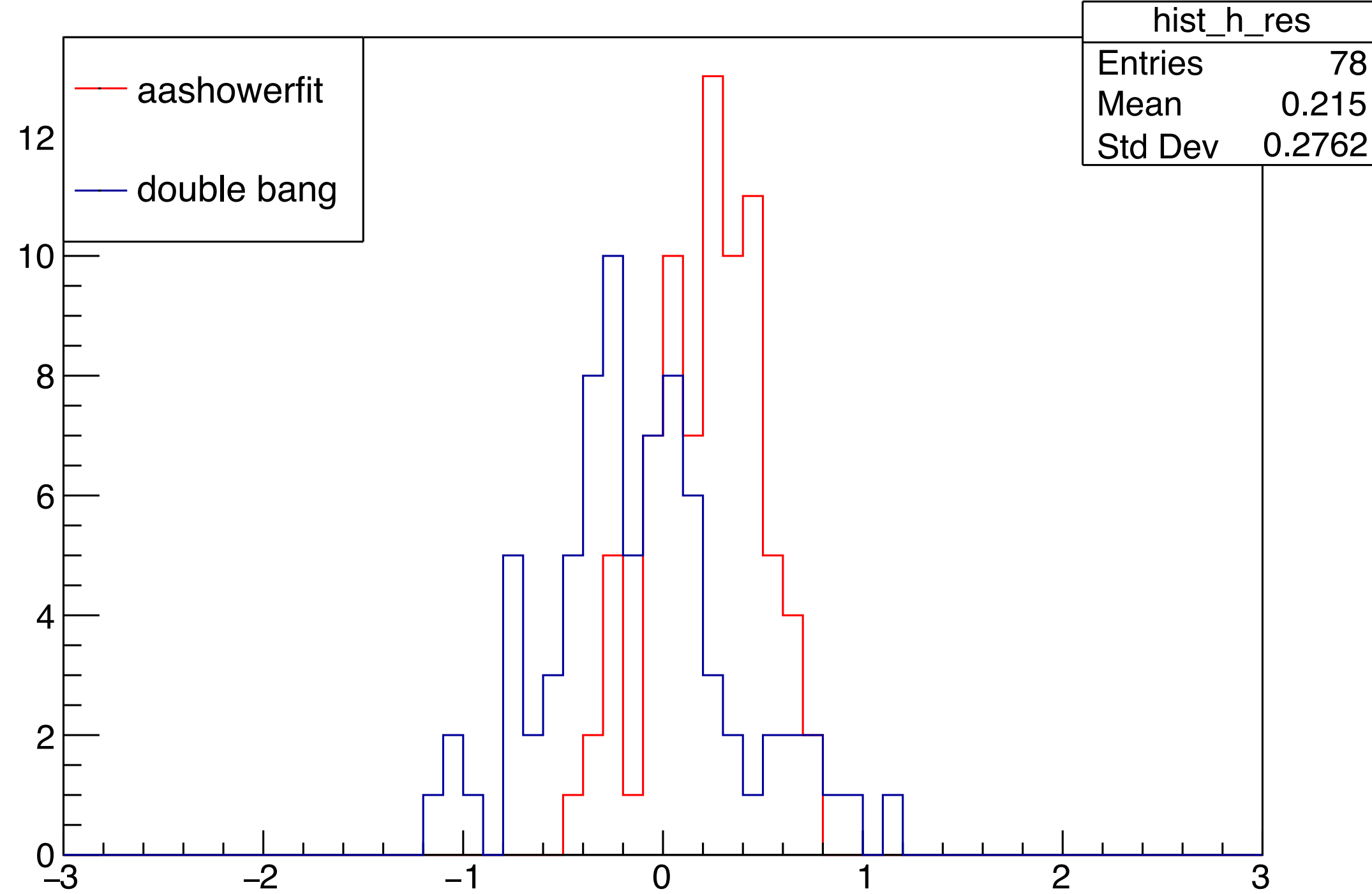
Performance



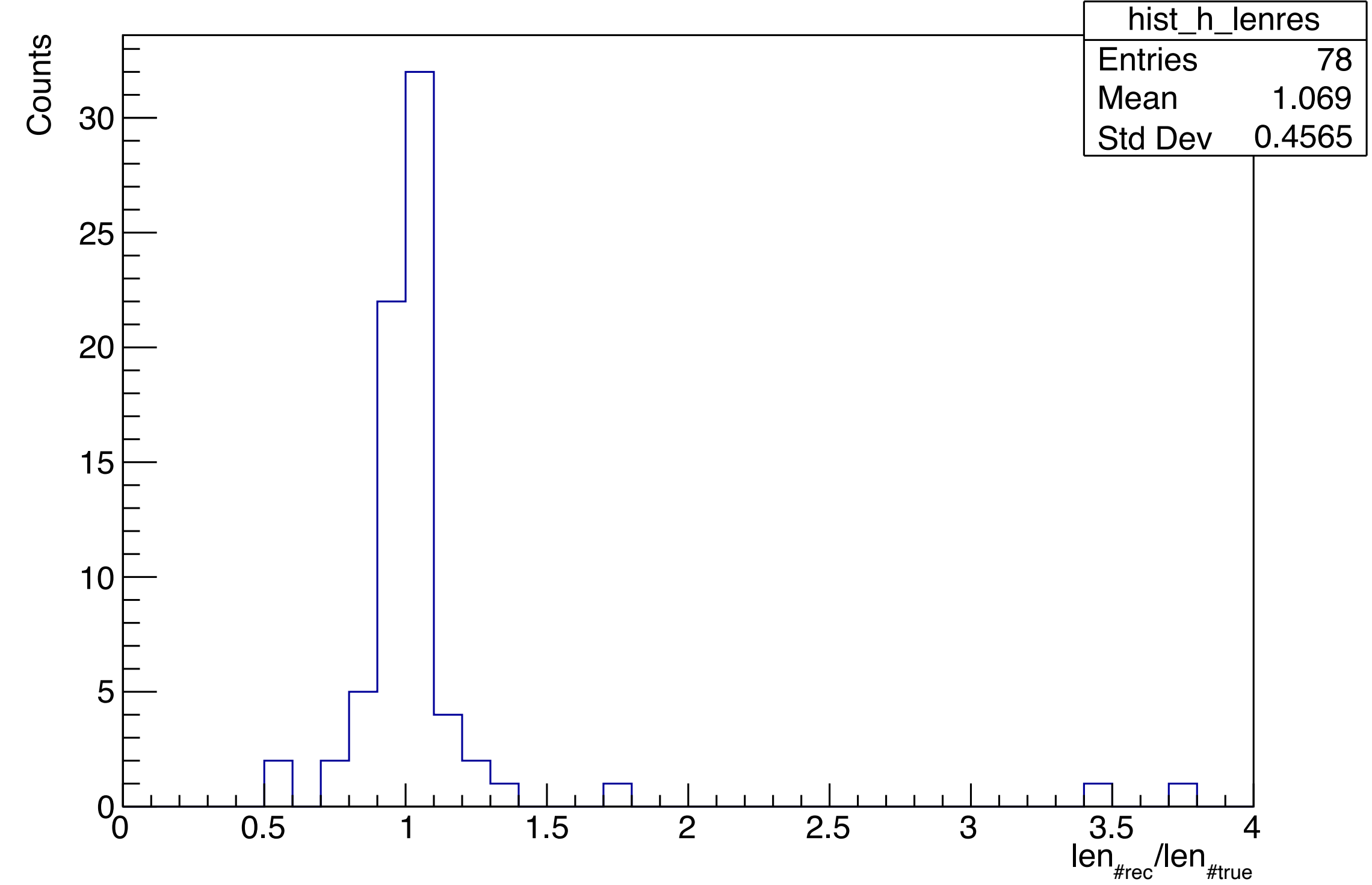
Performance

With better prefit

$\log_{10}(\text{angres_start}) \{ \text{rectrk_len}/\text{tau_len} > 0.5 \}$



Tau length resolution



Next steps

- Better profit \rightarrow better results
- Include hit/no hit information \rightarrow allows energy fitting
- Working on derivatives of likelihood with Brían to speed up fit