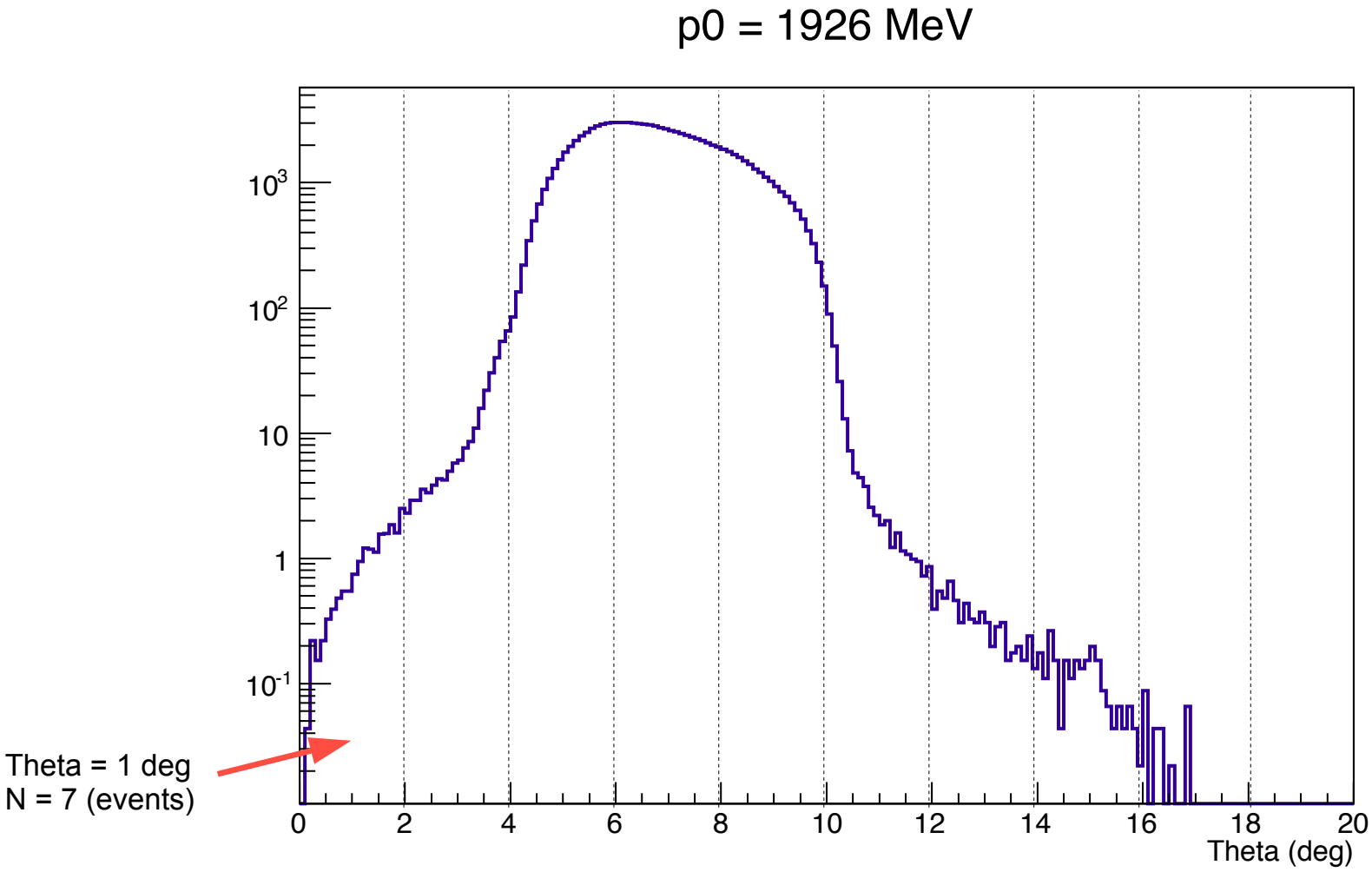
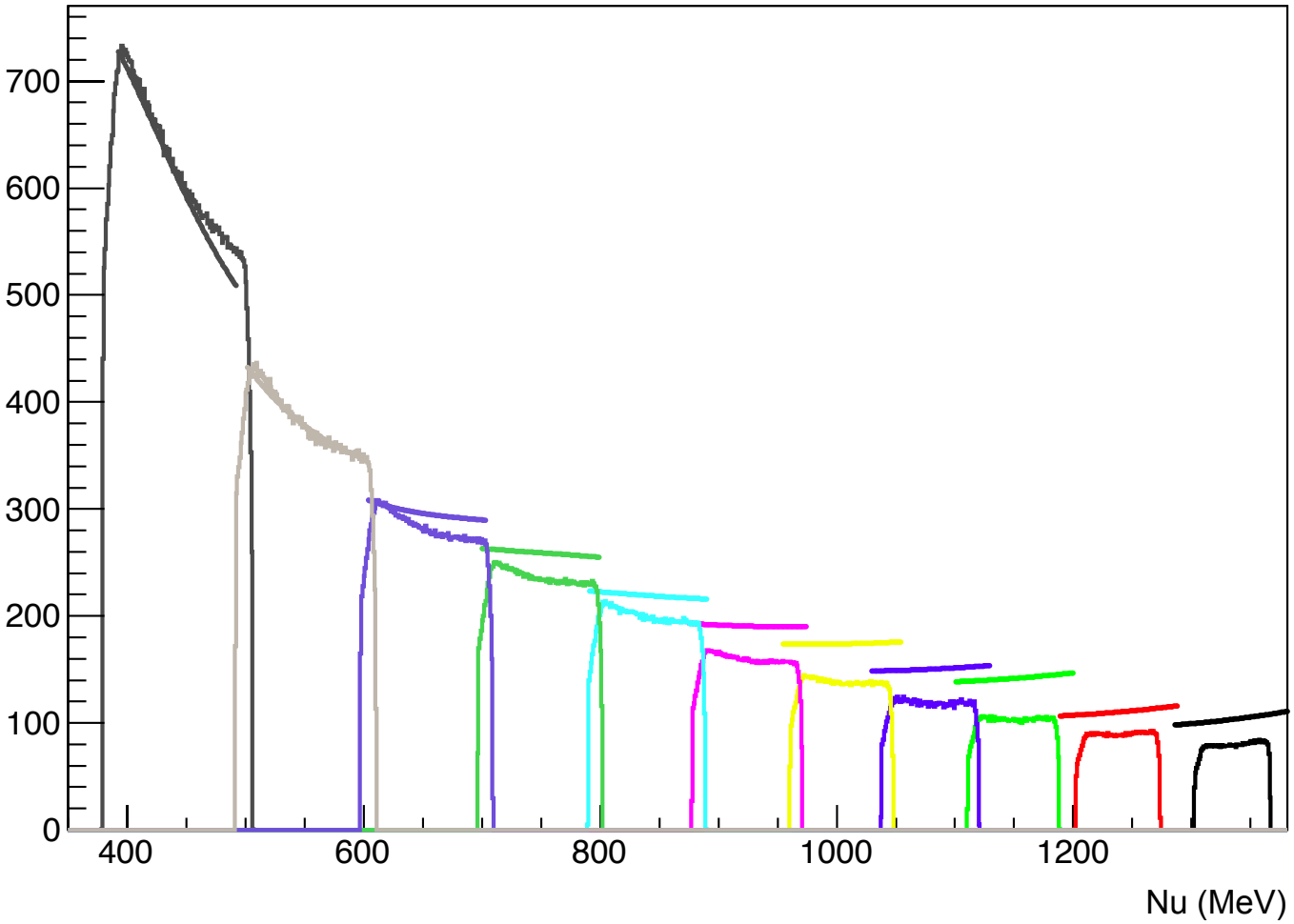
Reminder: New Method



Run simulation in the range p0 +/- 150MeV 10 times (once for each scattering angle slice)
Then take a weighted average as:

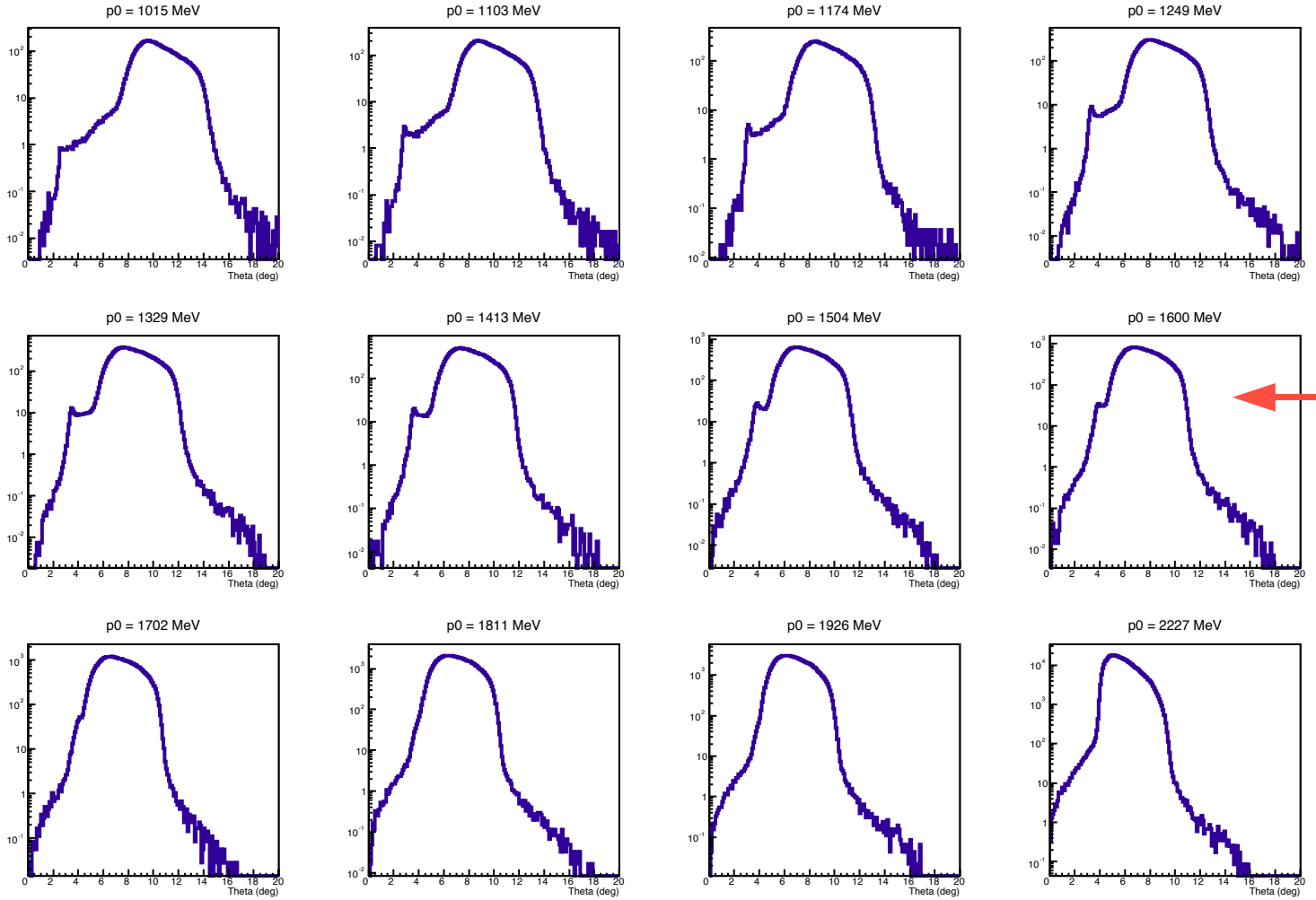
$$\sigma_{weighted} = \frac{\sum_a N_a \sigma_a}{\sum_a N_a}$$

2.254 GeV 5T Transverse Scaled Yield



- P.Bosted simulation is scaled by a constant amount across the entire energy setting to match the normalized yield
- Above 700 MeV simulation deviates from yield.
- Problem with scattering angle?

Scattering angle: All channels



Deviation starts here and continues up in Nu (down in p0)

- Secondary peak in scattering angle forms at the exact p0 setting that the simulation begins to deviate from yield data.
- The peak acts like an increase in events at smaller angles, resulting in a larger weighted XS for simulation (exactly what we see on previous slide).
- If scattering angle was real, this method should exactly recreate the data (to within a scale factor) so secondary peak might be a problem with reconstruction?
- Still looking into all variables (rec.th,rec.ph,tgt.th and tgt.ph) that go into scattering angle.