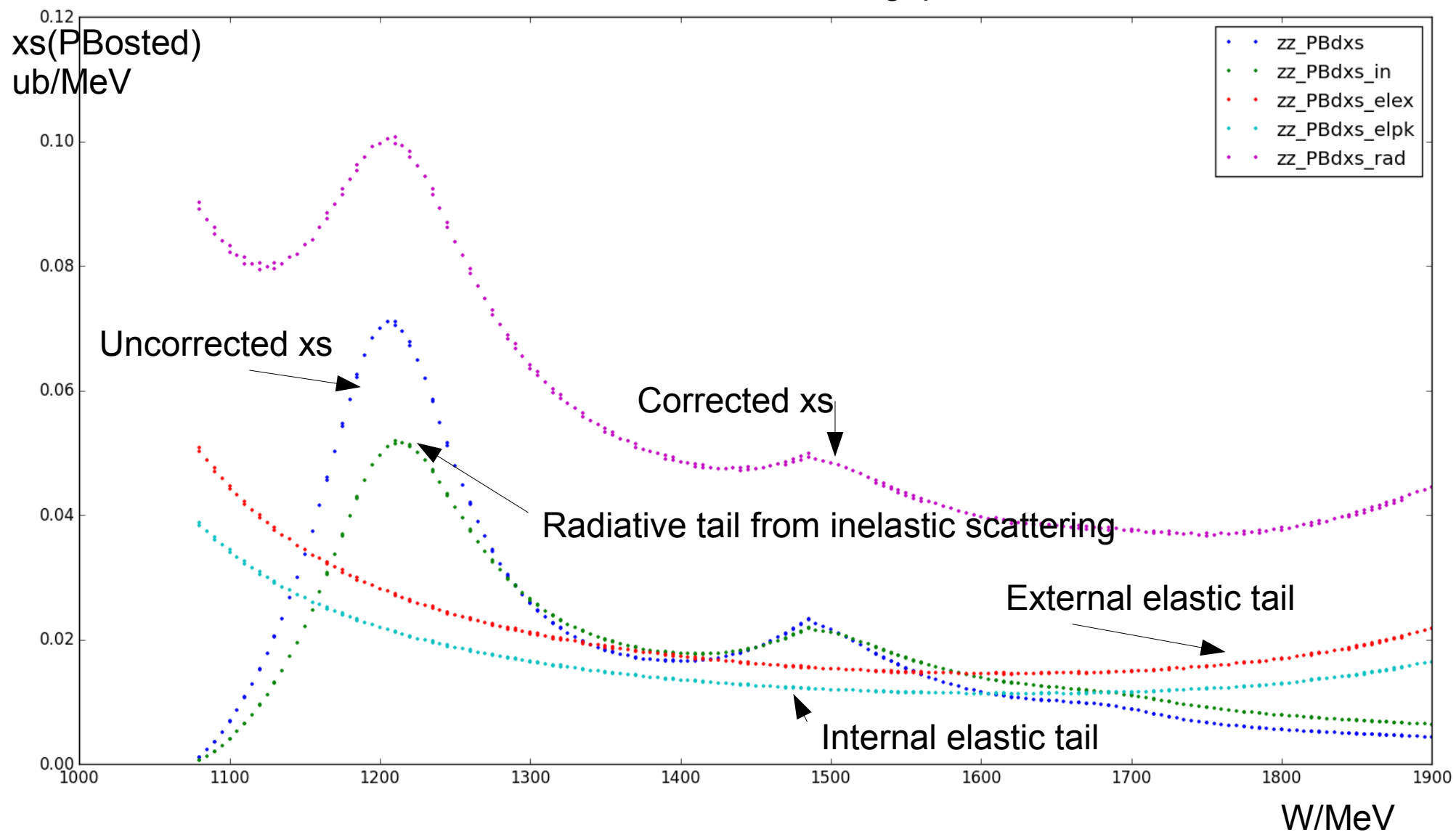


# Asymmetry model vs data update

Pengjia Zhu

Theta=5.67deg, proton



For the unpolarized radiative correction:

Inelastic tail: from Stein PRD 12.1884

External elastic tail: from Stein PRD 12.1884

Internal elastic tail: Use peak approximation from Stein's paper

Proton's elastic form factor:

From PRC.69.022201, provided from Moshe

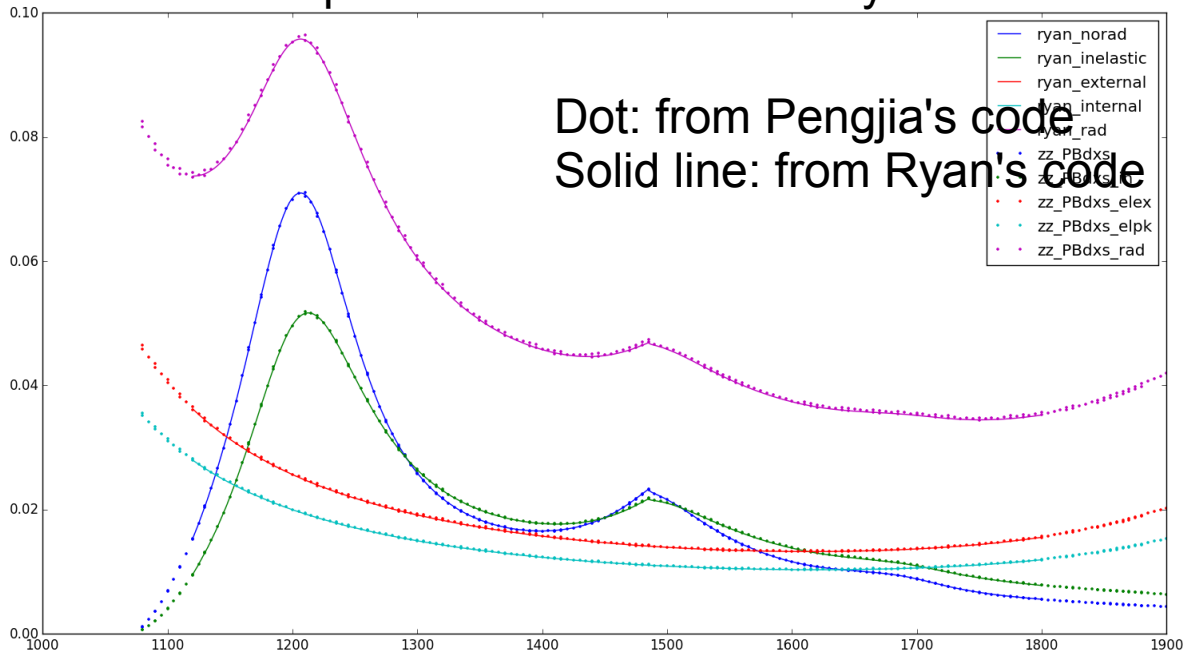
He,C,N's elastic form factor:

Use the same as in Ryan's code

Radiation length from Ryan's code (Toby calculated?)

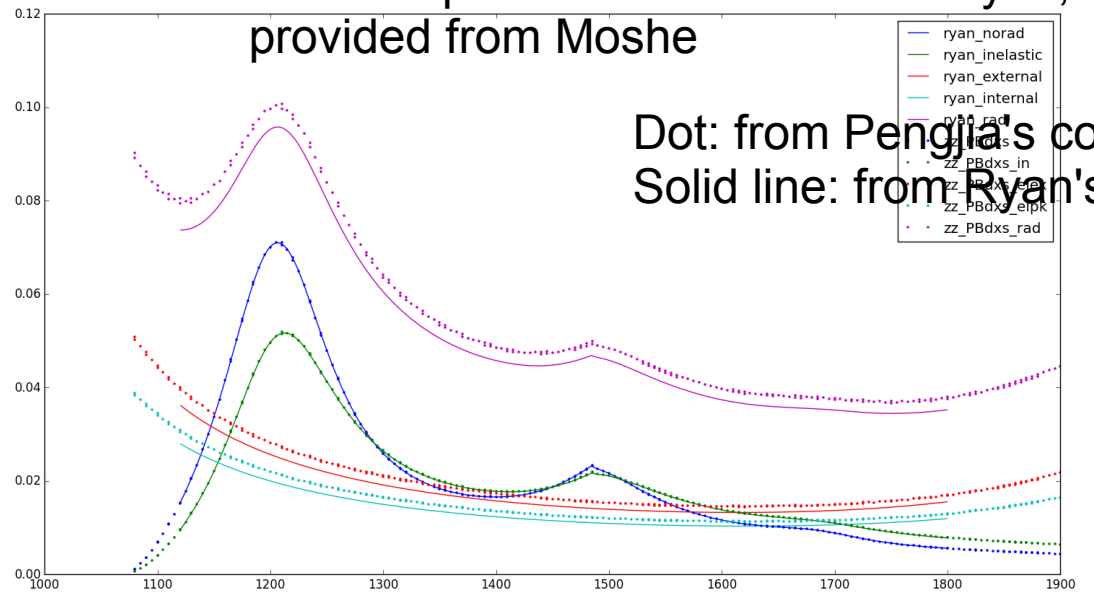
# Compare with ryan's result

## Same proton's form factor with ryan



Dot: from Pengjia's code  
Solid line: from Ryan's code

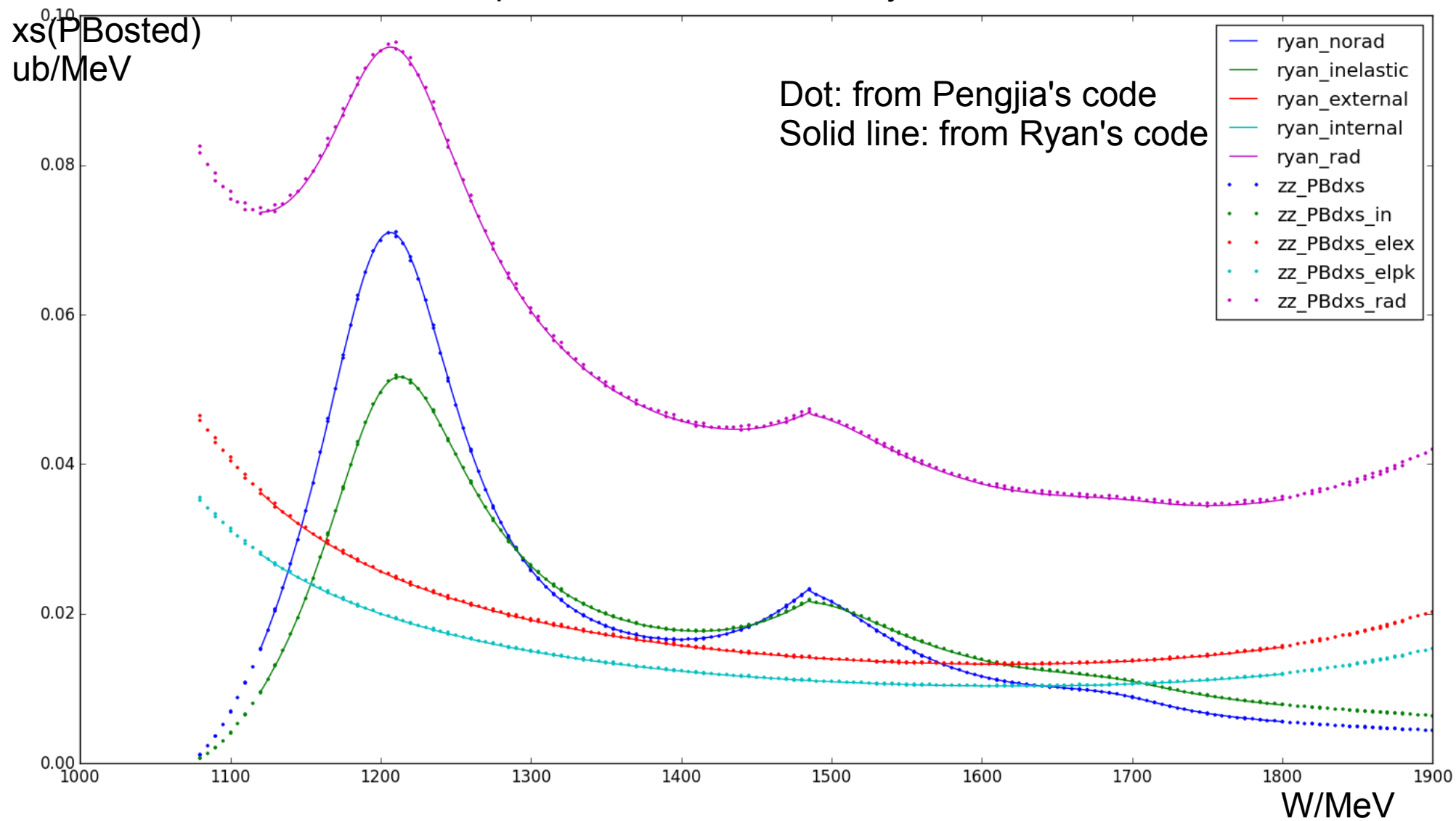
## Different proton's form factor with ryan, provided from Moshe



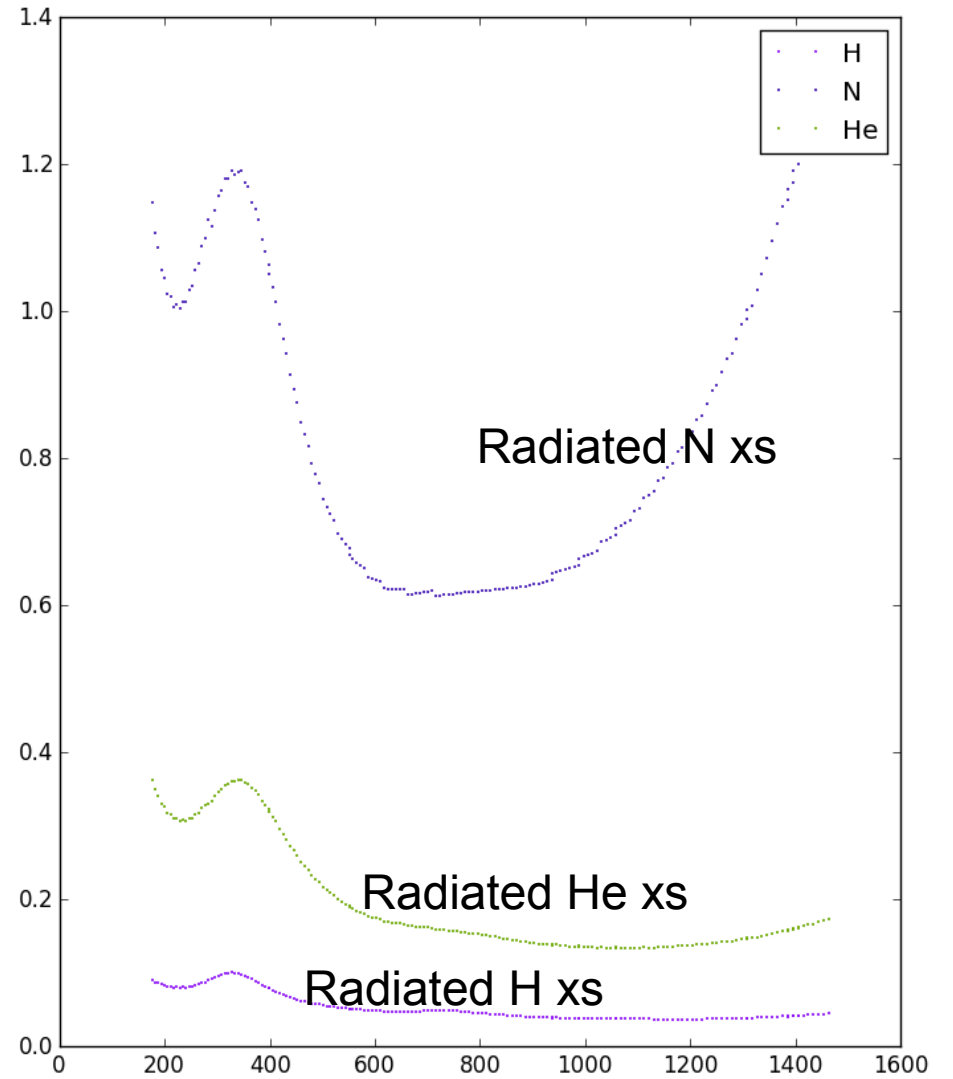
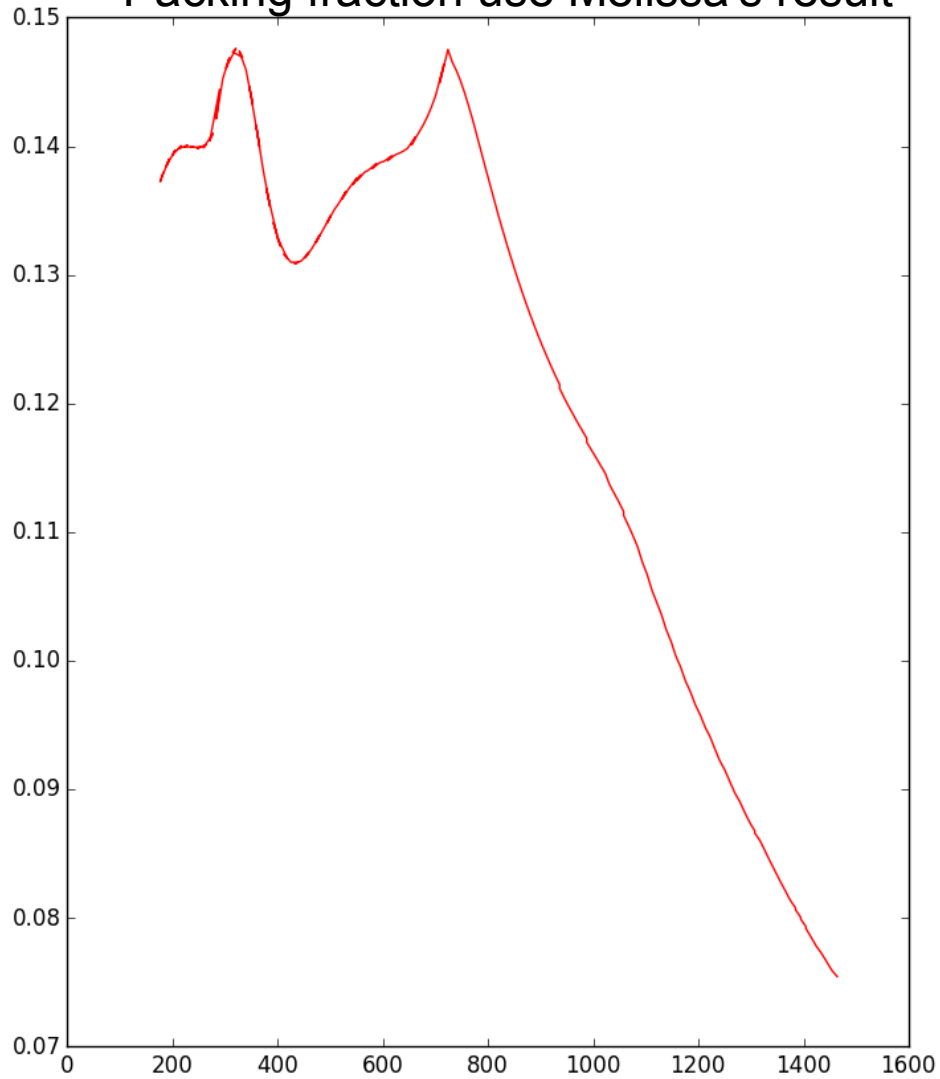
Dot: from Pengjia's code  
Solid line: from Ryan's code

Compare with ryan's result

different proton's form factor with ryan



Dilution factor for material 17  
Packing fraction use Melissa's result



Dilution factor use the method:

$$D_f = \frac{3 \frac{\rho_{NH_3} p_f l_{tg}}{M_{NH_3}} \sigma_H}{\frac{\rho_{NH_3} p_f l_{tg}}{M_{NH_3}} (3\sigma_H + \sigma_N) + \frac{\rho_{He} (l_{tot} - p_f l_{tg})}{M_{He}} \sigma_{He}}.$$

Density: NH<sub>3</sub> = 0.97 from Skabelin's thesis

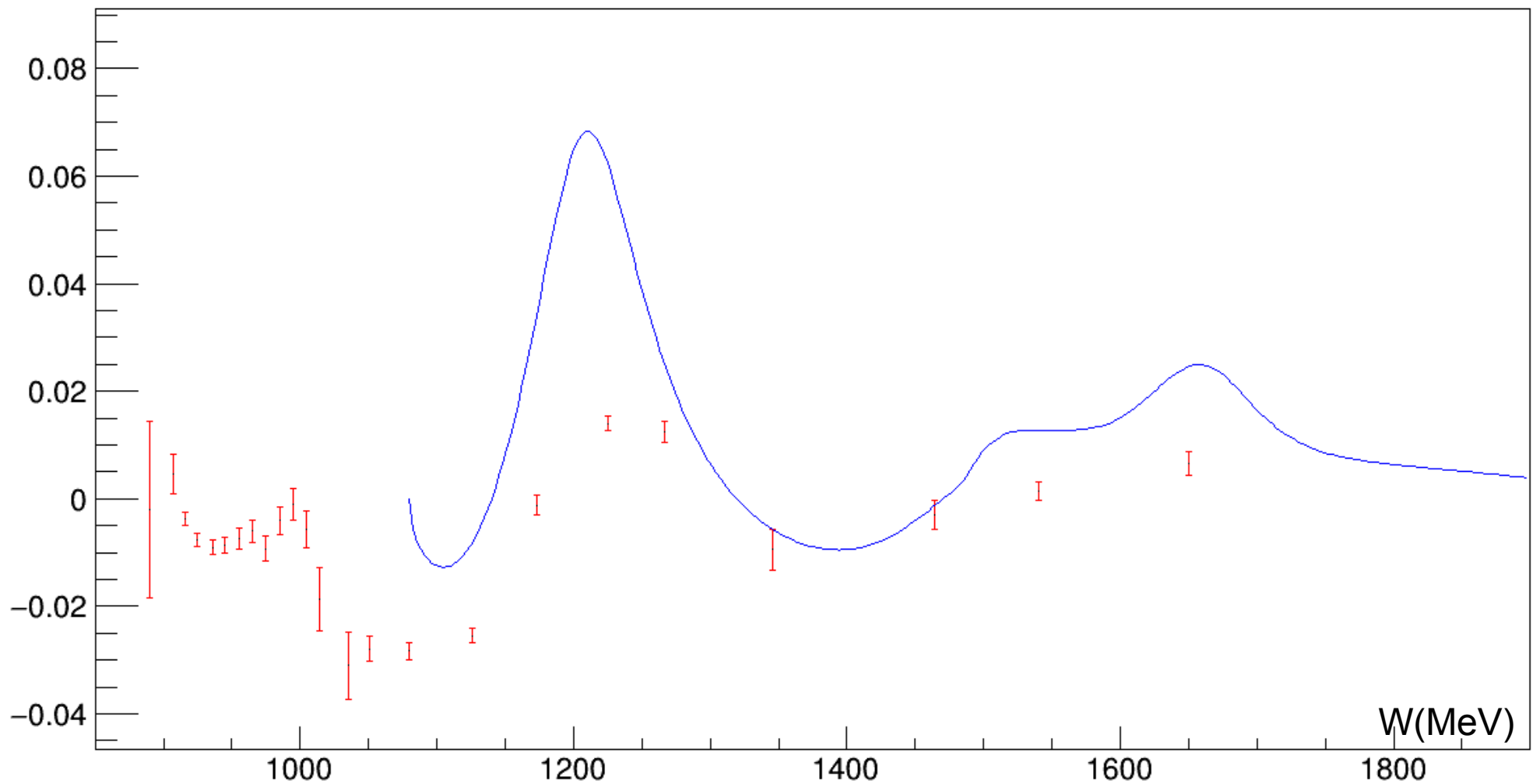
He = 0.125 maybe not true for this one

Length= l<sub>tg</sub> = 1.5545

l<sub>tot</sub> = 2.8271 from Elog Jixie's xsl file

Use unradiated polarized MAID model / radiated unpolarized Pboosted model  
Polarized MAID model is needed to do the radiative correction

### asymmetry





Compare with the unradiated asymmetry  
Polarized MAID model is needed to do the radiative correction

