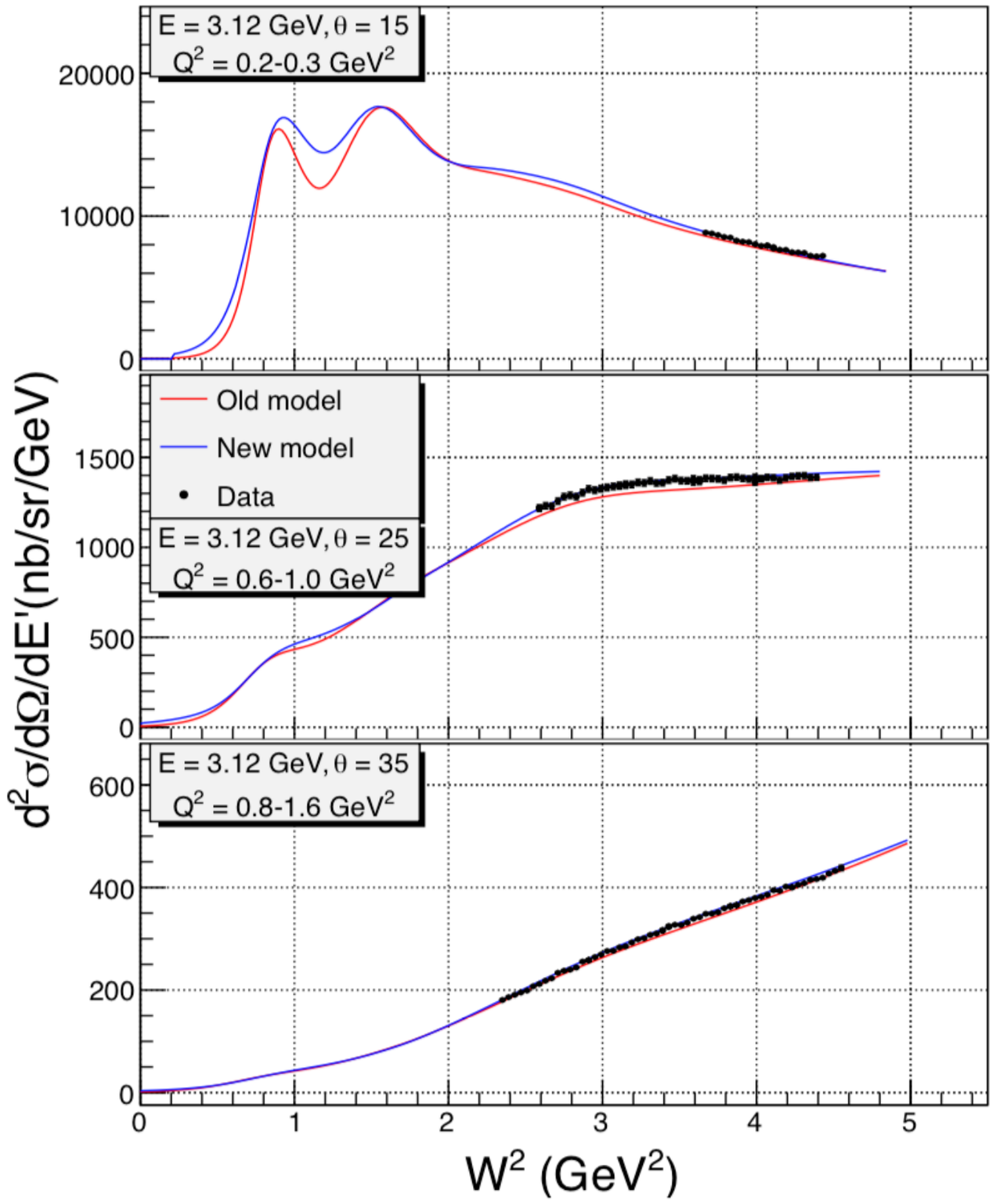
AI Simulations

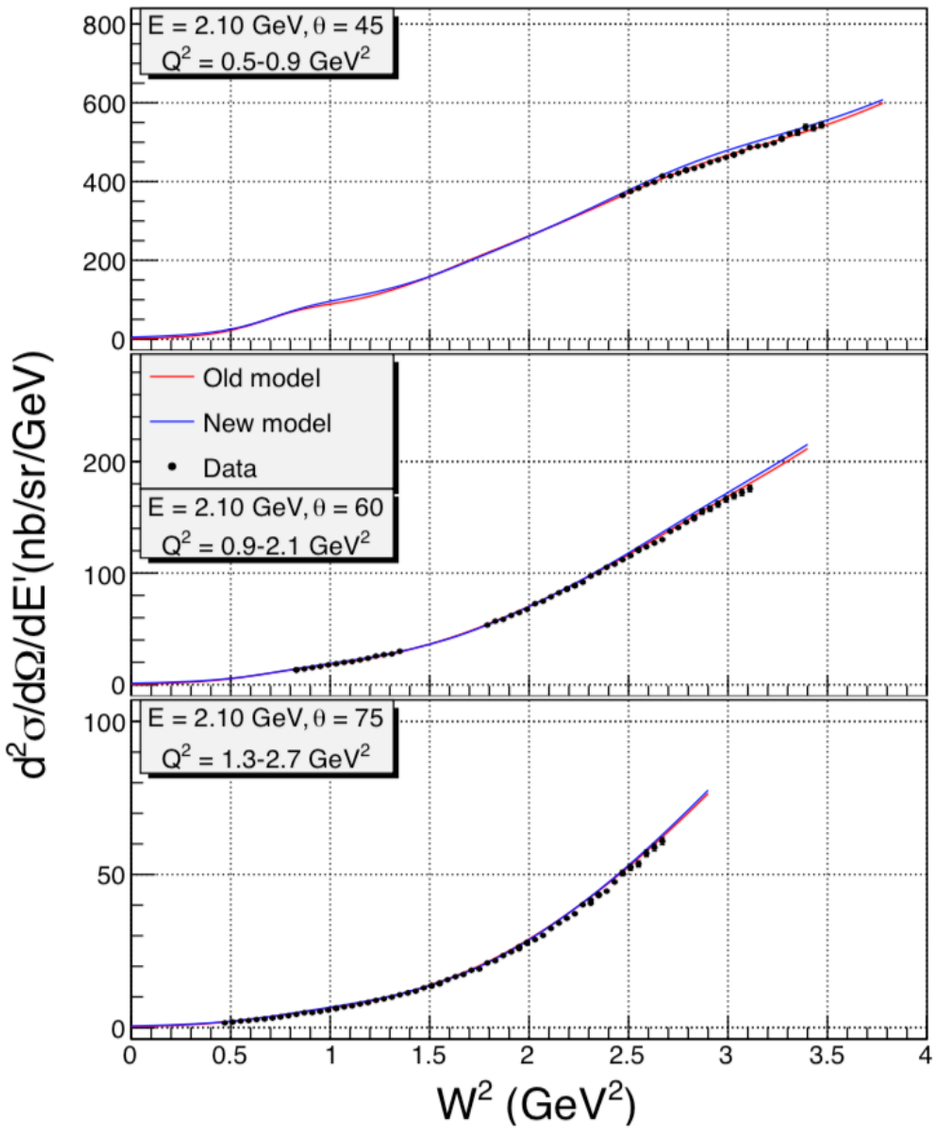
Ciprian Gal UVa

Available data

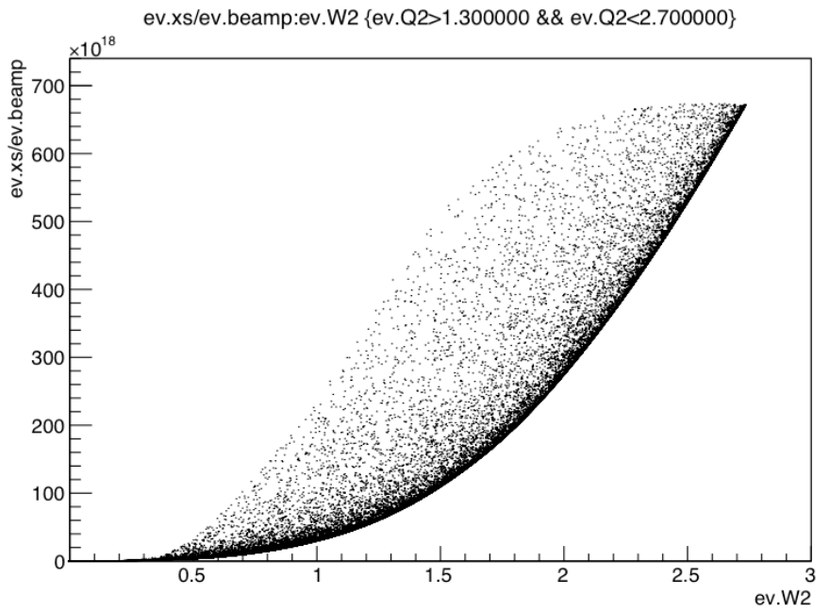
- Going through the supporting paper for the model fits, it seems that the only two sources of data are:
  - Compilation of world quasi-elastic data from http://faculty.virginia.edu/qes-archive/QES-data.php
  - Data from the thesis of Vahe Mamyan: http://arxiv.org/abs/1202.1457 (I think then “new model” is what I implemented)
- The data has multiple angles and Q2 ranges

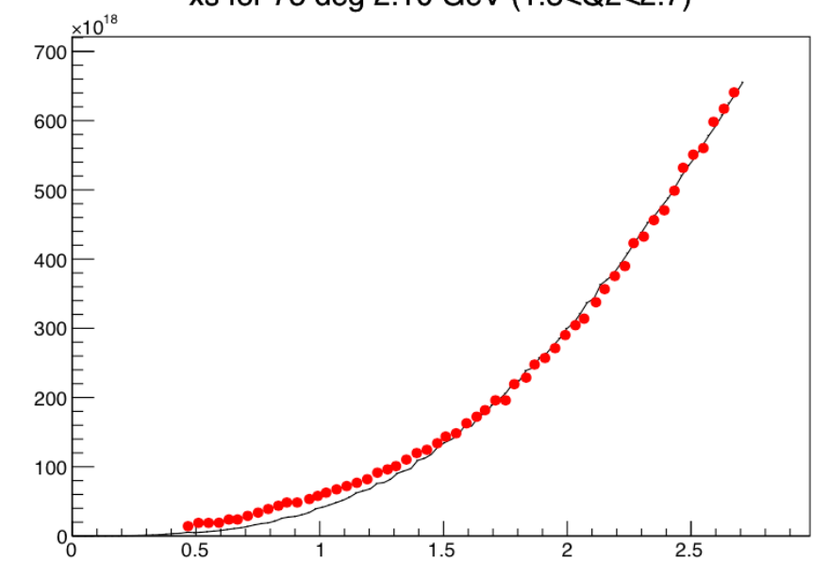


Available data



Beam E: 2.10 GeV
theta: 75 deg
1.3<Q2<2.7 GeV2

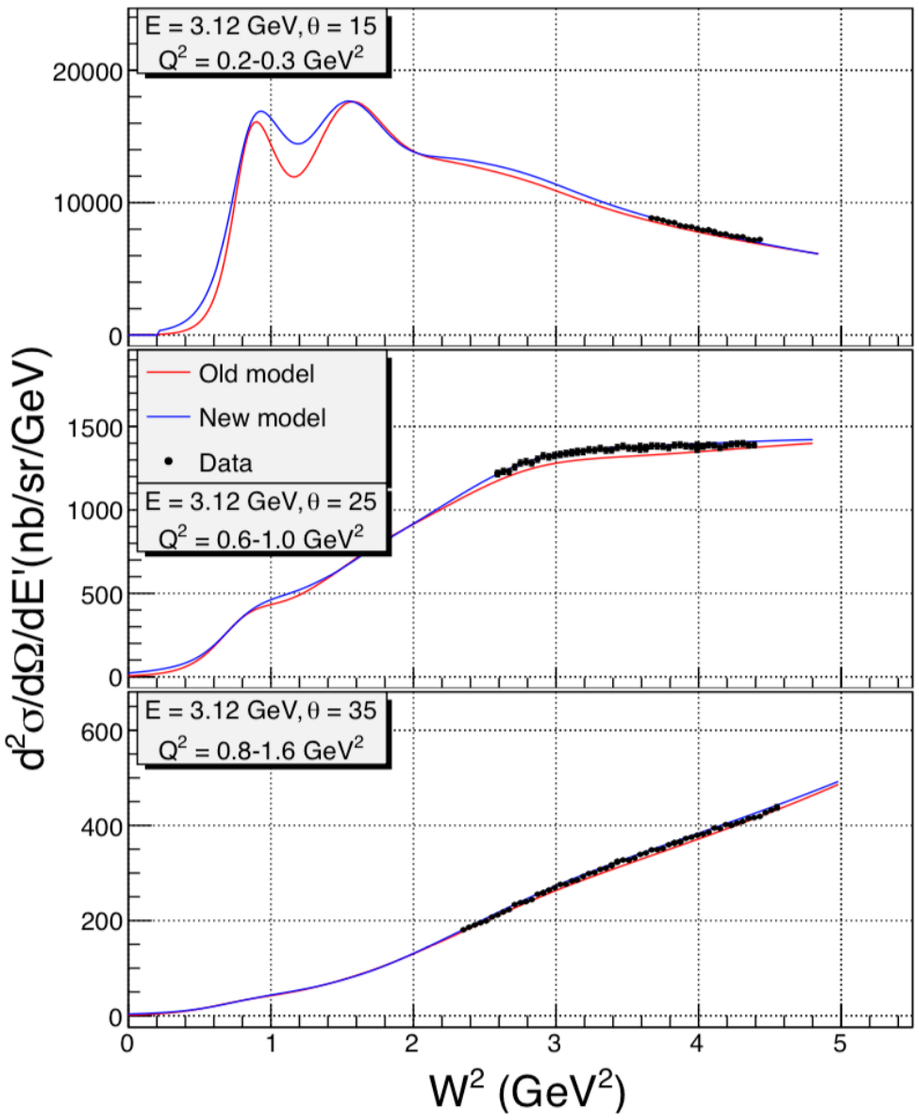




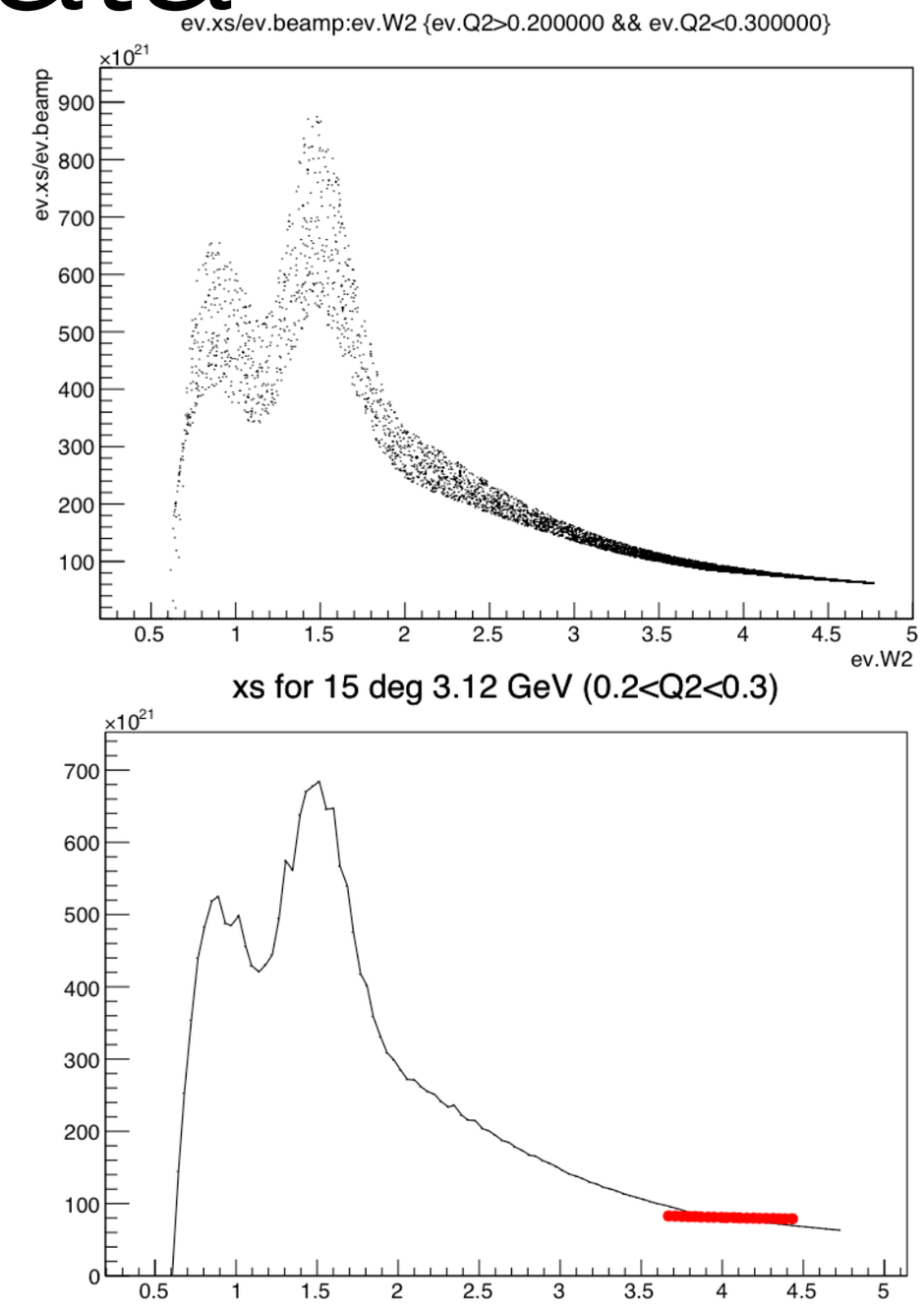
- Modified the remoll initial conditions to match some of the data from Mamyan in the hope to get the curves predicted on the left

- The red points are the data from the bottom left plot scaled to the cross section I get as output from remoll

Available data



Beam E: 3.12 GeV
theta: 15 deg
0.2<Q2<0.3 GeV2



xs for 15 deg 3.12 GeV (0.2<Q2<0.3)

- This shows significant differences compared to the Mamyan plots