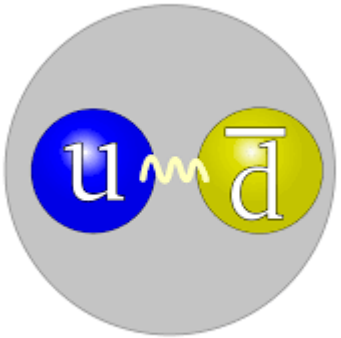
Monday Meeting

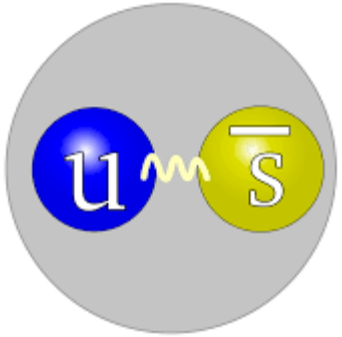
7/13/20

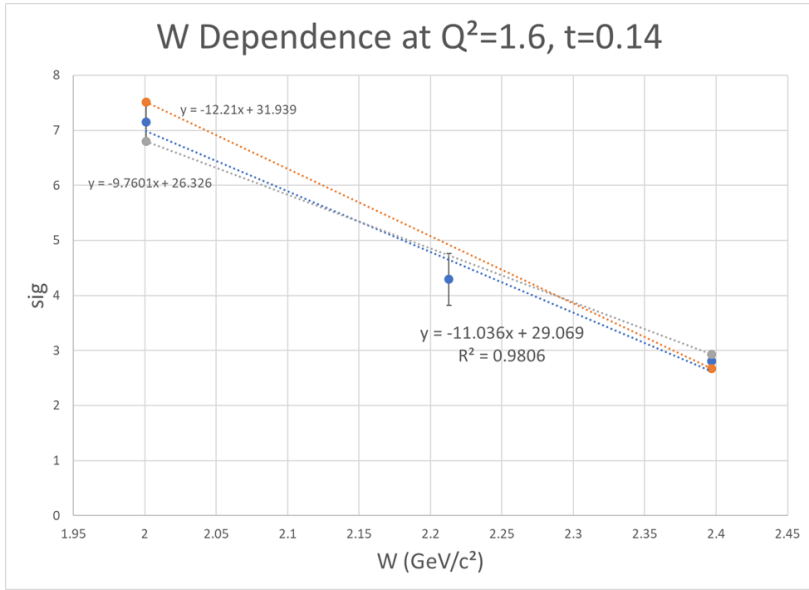
Leslie Kim

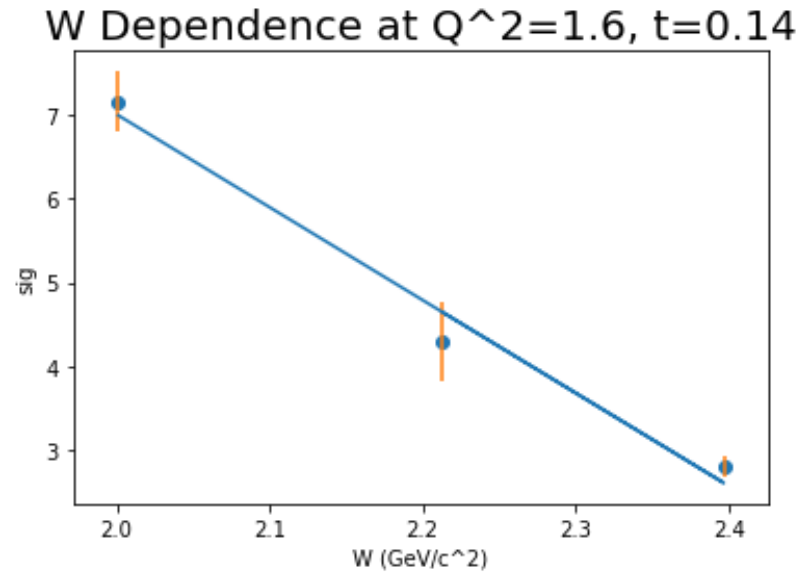
Project Overview

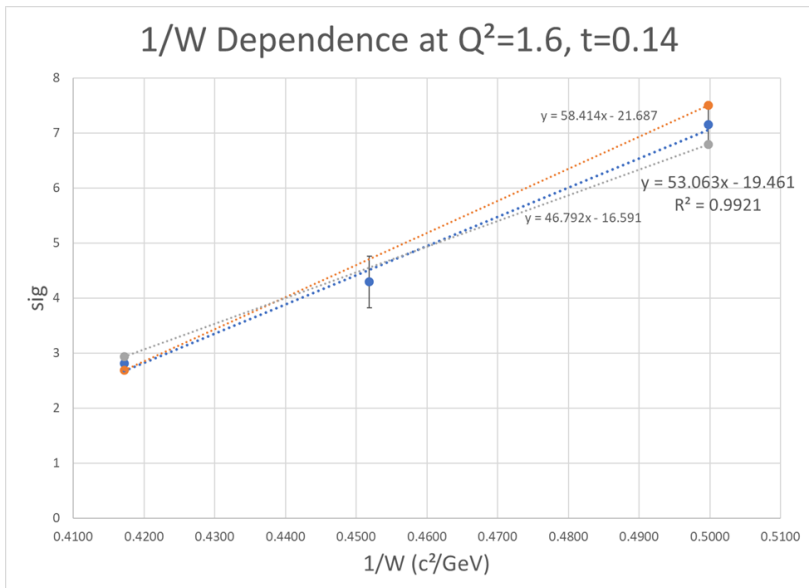
- Global fitting of pion and kaon data using Python
- Find a suitable fit form for each set of data
  - What kind of relationship?
  - How good is the fit?

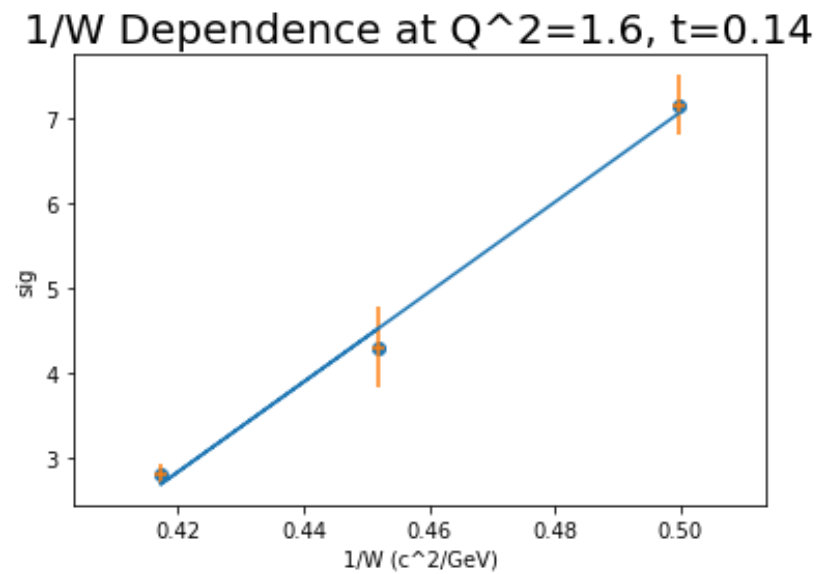





W Dependence at Q²=1.6, t=0.14
y = -12.21x + 31.939
y = -9.7601x + 26.326
y = -11.036x + 29.069
R² = 0.9806
sig
W (GeV/c²)


W Dependence at Q^2=1.6, t=0.14
sig
W (GeV/c^2)


1/W Dependence at Q²=1.6, t=0.14
y = 58.414x - 21.687
y = 53.063x - 19.461
R² = 0.9921
y = 46.792x - 16.591
sig
1/W (c²/GeV)


1/W Dependence at Q^2=1.6, t=0.14
sig
1/W (c^2/GeV)

Plans for the week of 7/13

- Continue research
- Continue plotting and fitting the pion data

```
* Q2    W      t       tmin    x      sig    dsig
* ---------------------------------------------
* Fit W dependence at Q^2=1.6, t=0.14
*1.455  2.001  0.135    0.132  0.318  7.152  0.356
*1.617  2.397  0.139    0.070  0.250  2.807  0.124
*1.593  2.213  0.139    0.094  0.284  4.292  0.473
*---------------------------------------------------
* Fit Q^2 dependence at W=2.2 and t=0.14
*0.70    2.19   0.14     0.024  0.152  5.81    0.9
*1.939  2.274   0.145    0.116  0.311  3.175   0.361
*2.125  2.308   0.145    0.126  0.323  2.768   0.272
*1.35   2.19    0.14     0.14   0.256  4.62    0.21
*1.455  2.001   0.135    0.132  0.318  7.152  0.356
*1.593  2.213   0.139    0.094  0.284  4.292  0.473
*1.617   2.397  0.139    0.070  0.250  2.807   0.124
* Fit Q^2 dependence at W=2.2 and t=0.2
*0.70    2.19   0.18     0.024  0.152  4.79    0.98
*1.667  2.187   0.166    0.105  0.299  3.91    0.44
*2.279  2.264   0.202    0.147  0.439  2.34    0.21
*1.658  2.385   0.166    0.075  0.256  2.521   0.110
*1.610  1.944   0.195    0.156  0.357  5.443   0.468
* Fit Q^2 dependence at W=2.2 and t=0.5
*3.766  2.243   0.450   0.339   0.476  0.721   0.060
*3.44   4.0     0.527   0.037   0.20   0.0183  0.007
```