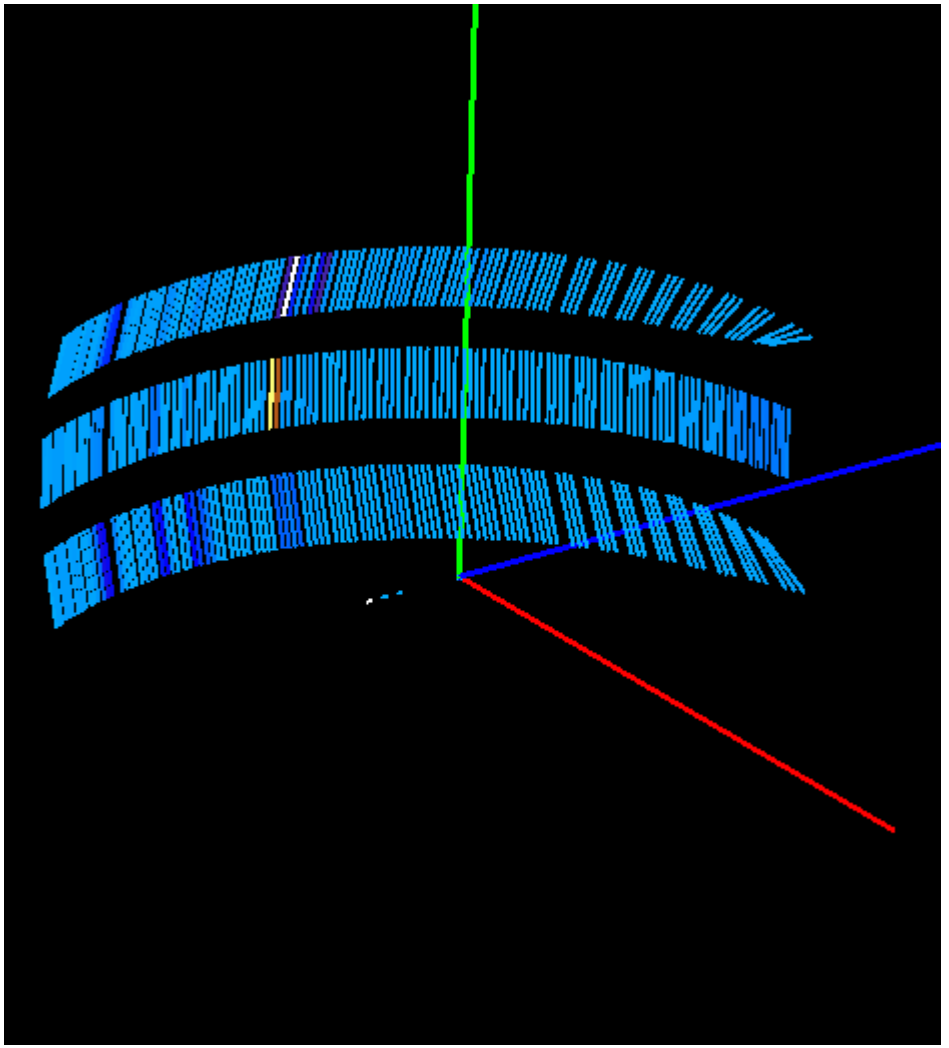
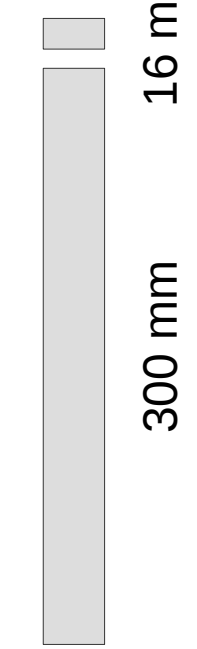
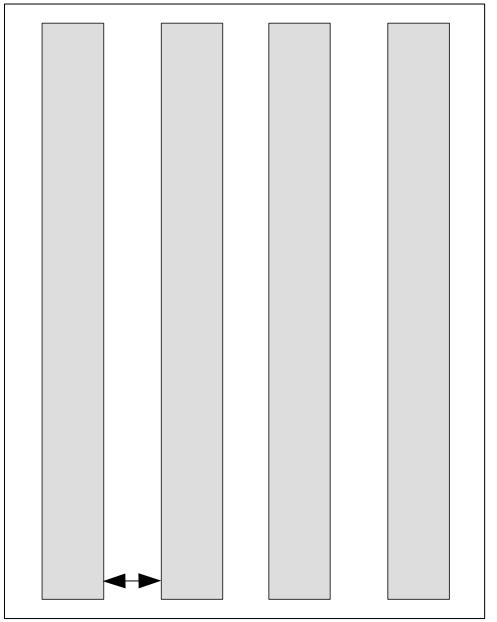
IN6 Instrument Definition Updates

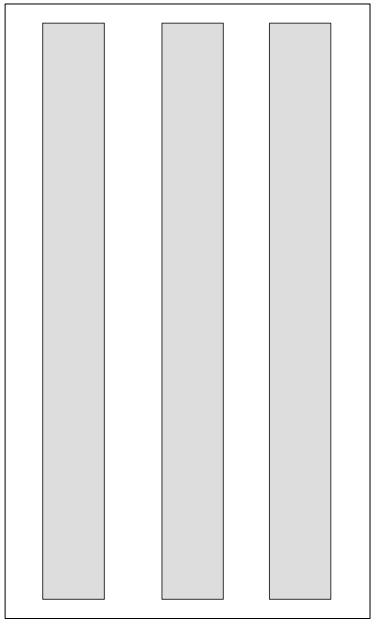
Sprint Review Meeting 28/06/16

IN6 Detector Geometry

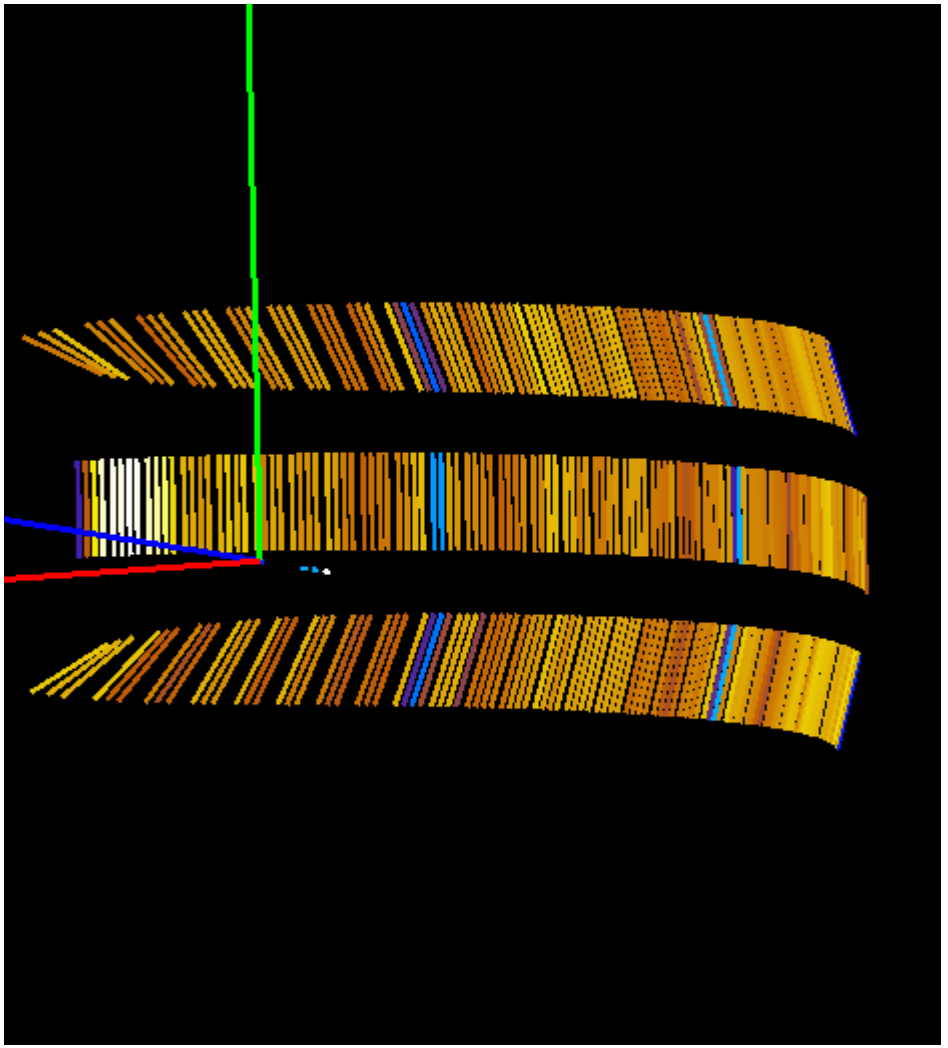




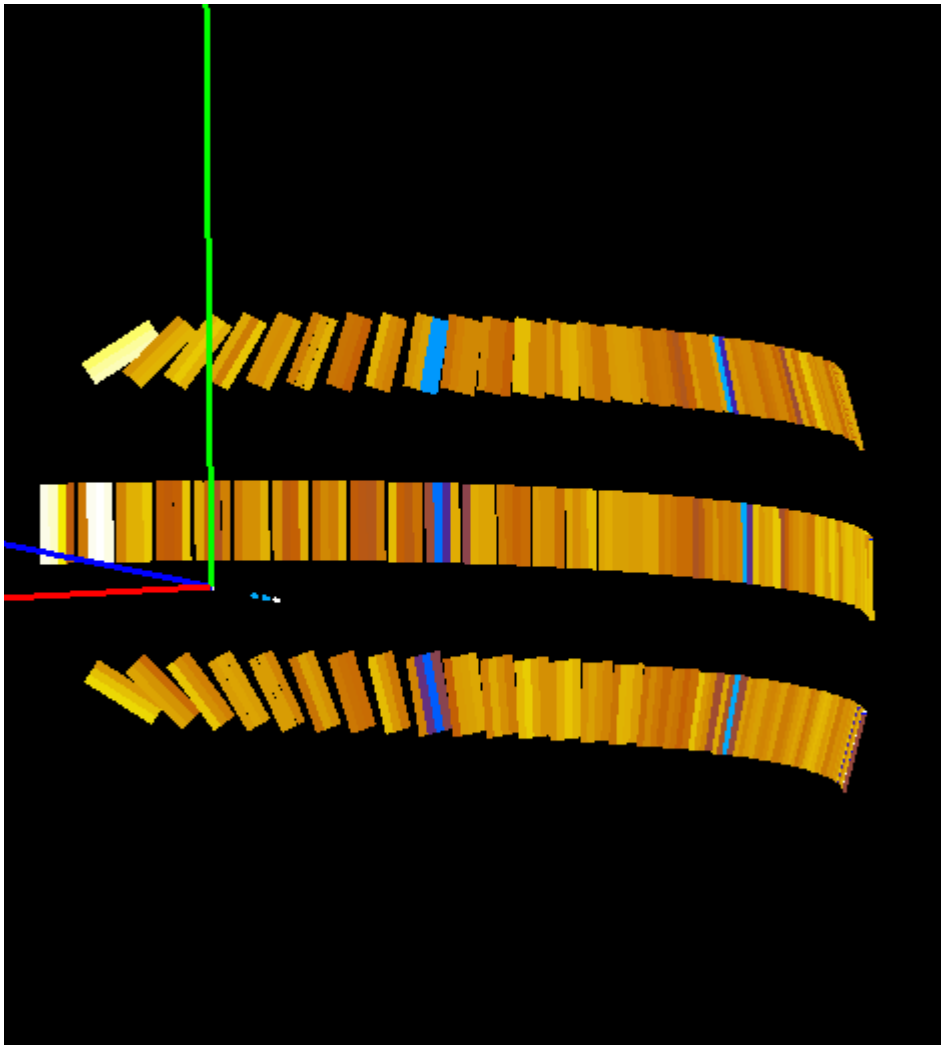




IN6 IDF Update

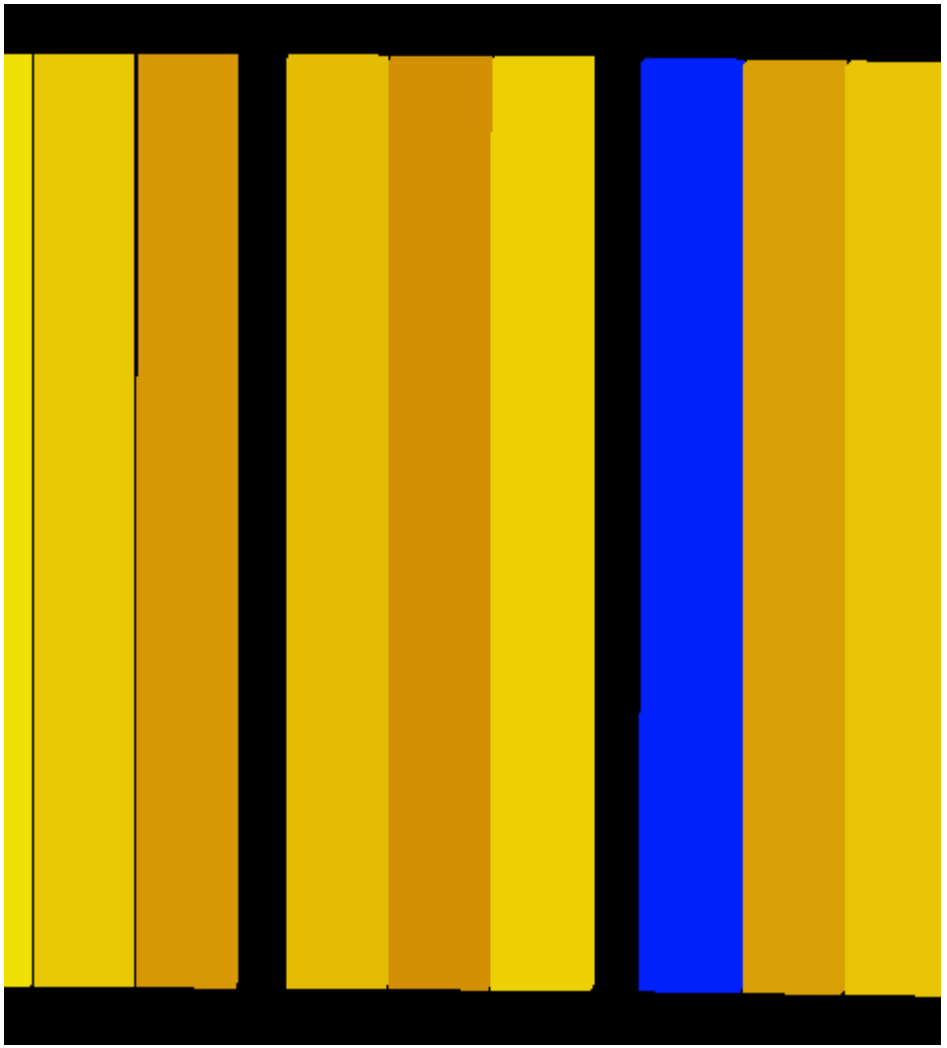


Existing

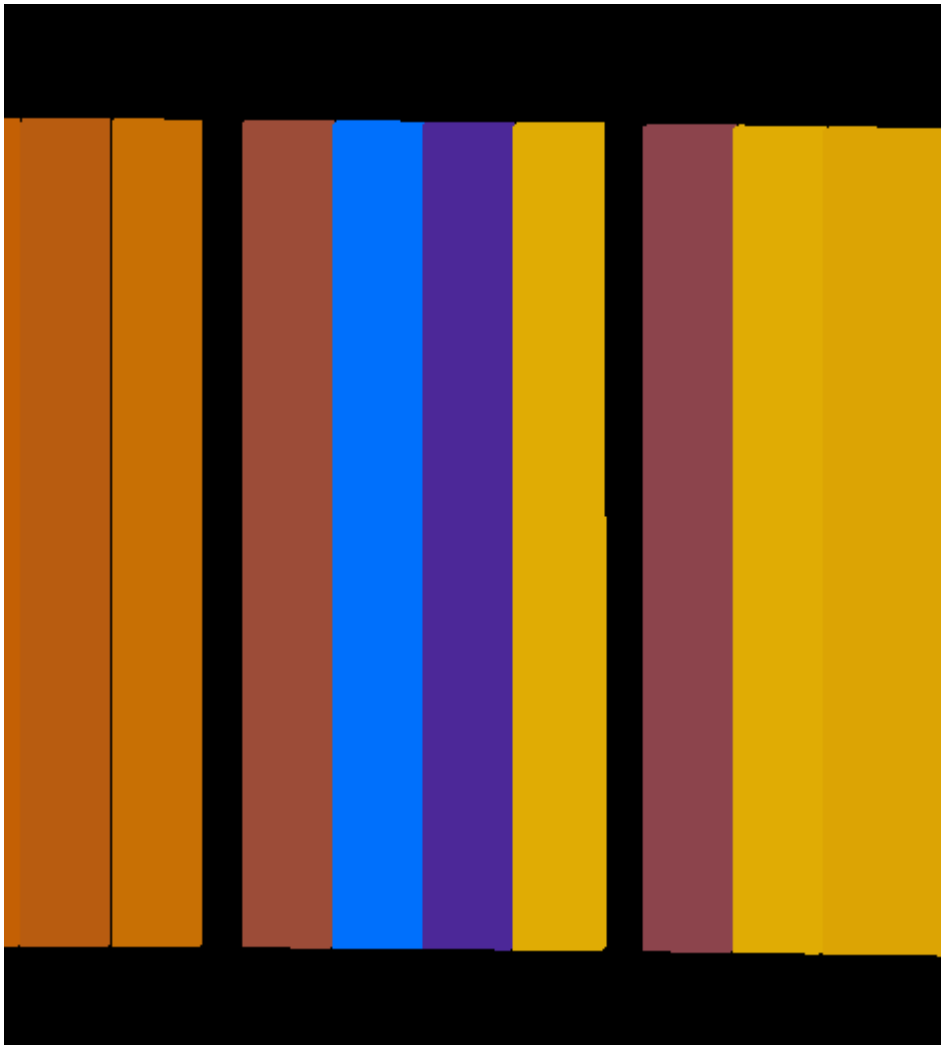


New

IN6 IDF Update



Bank of 3



Bank of 4

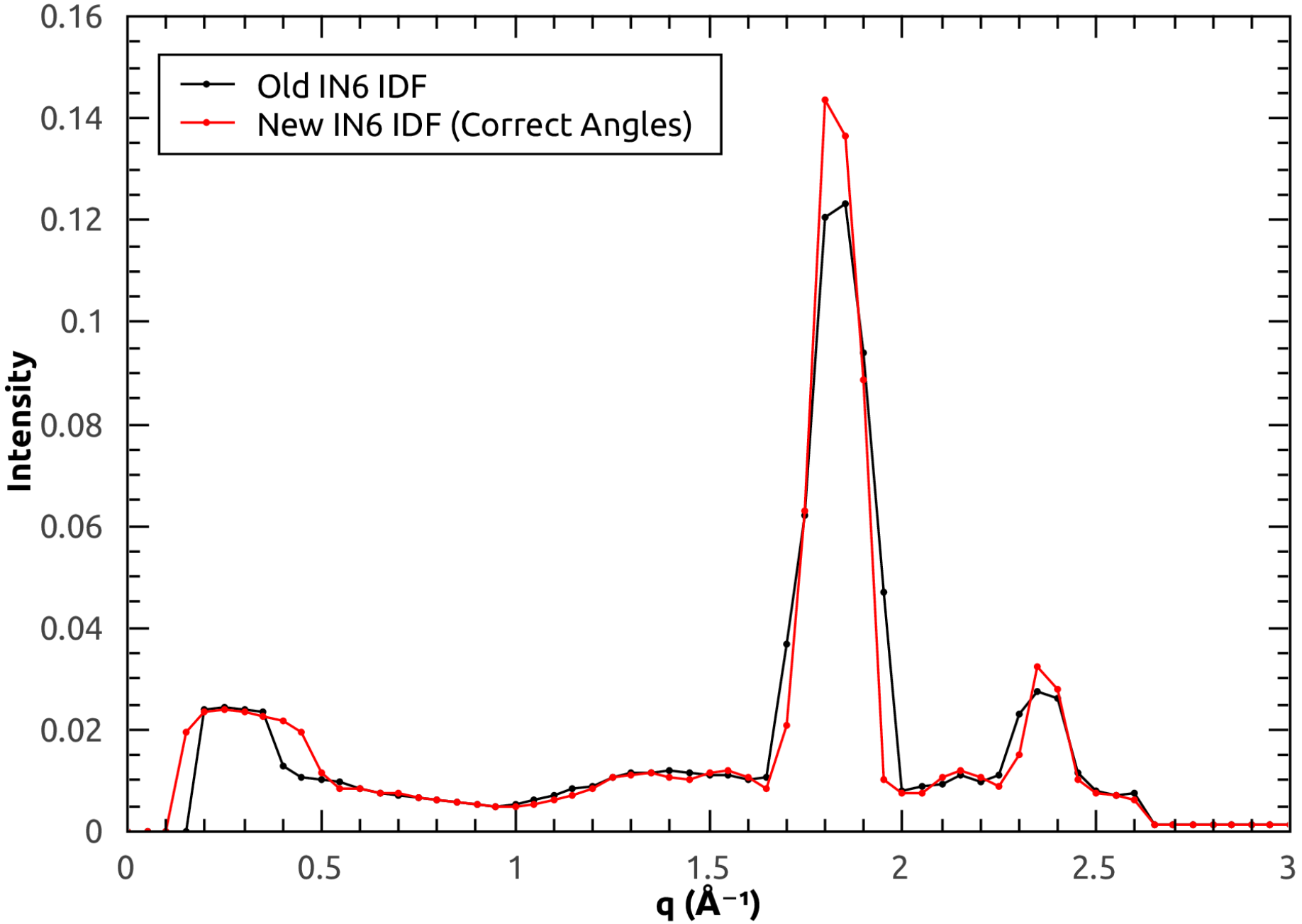
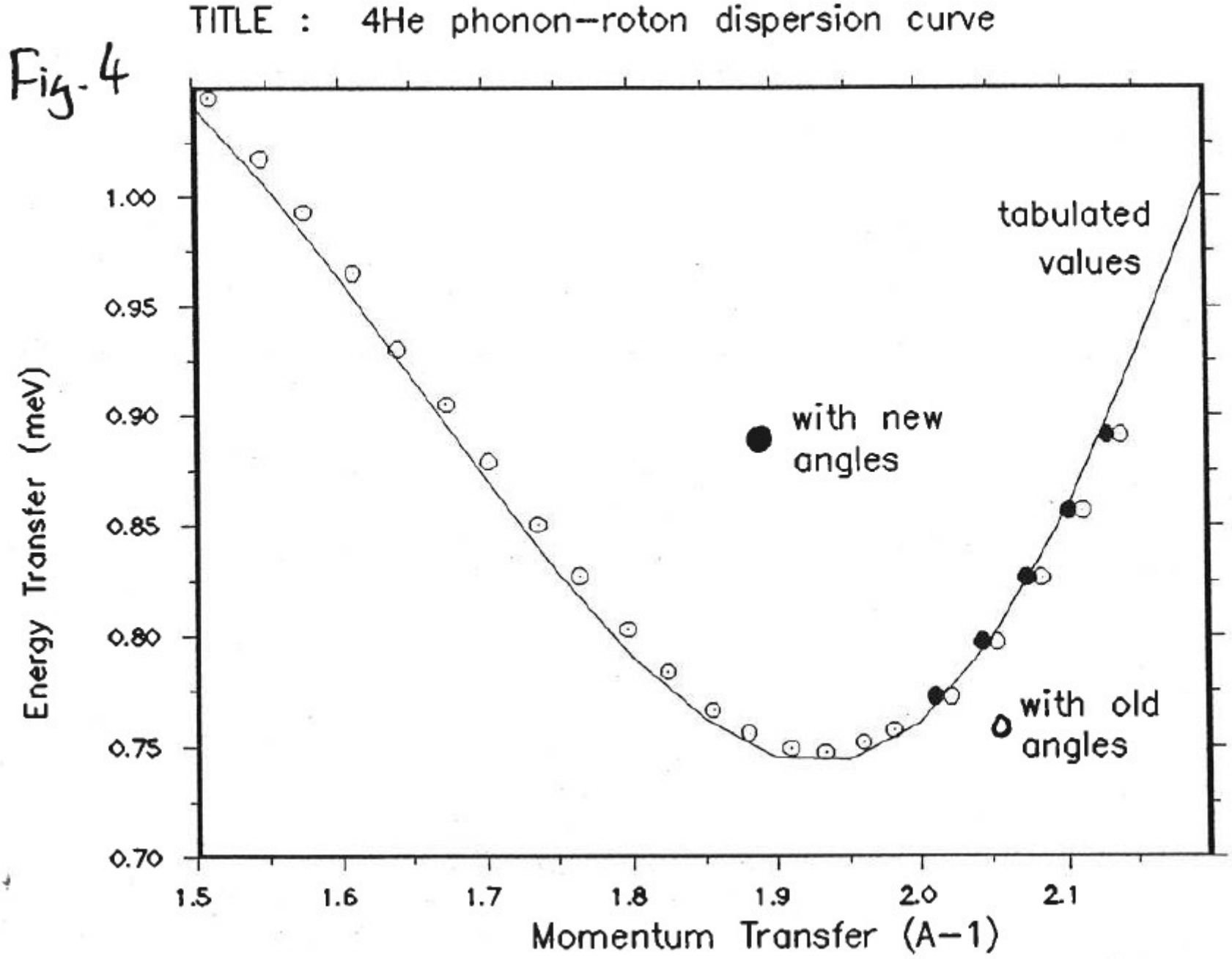
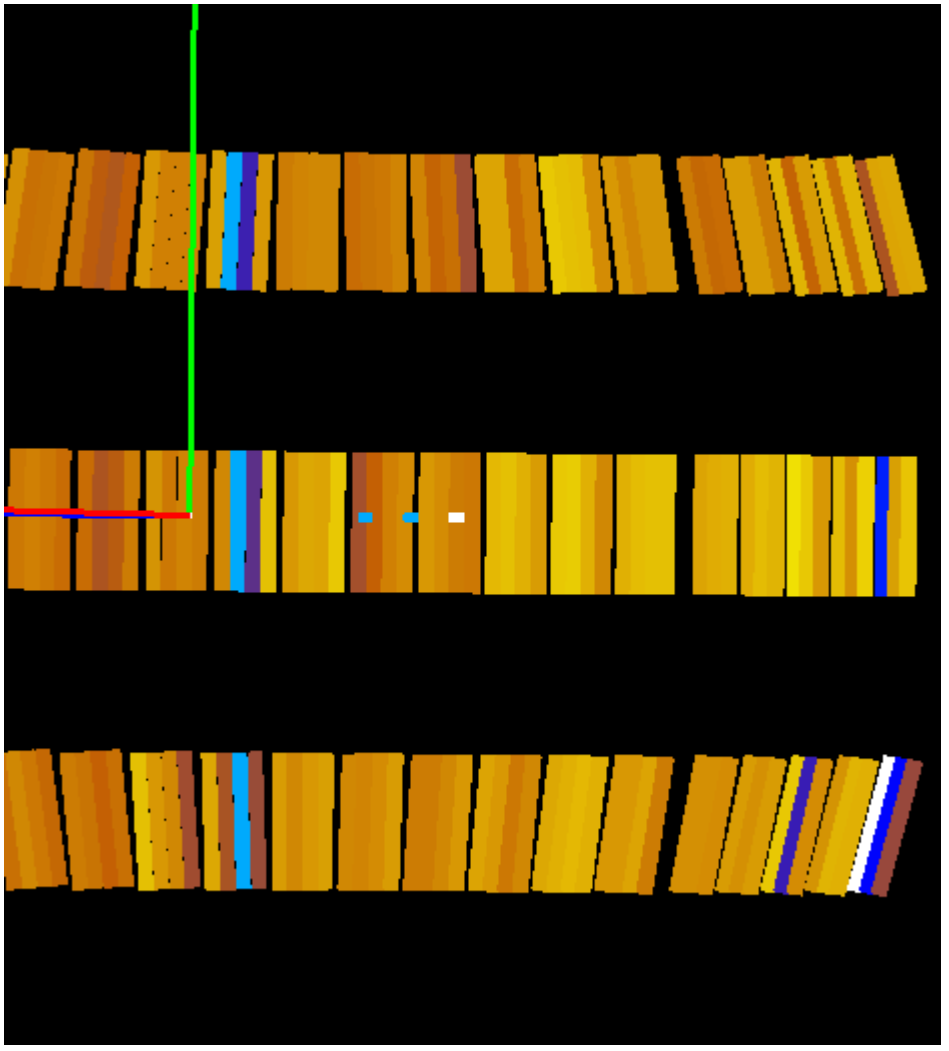

SofQW - Old IDF vs New IDF
Old IN6 IDF
New IN6 IDF (Correct Angles)
Intensity
q (Å⁻¹)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
0.5
1
1.5
2
2.5
3

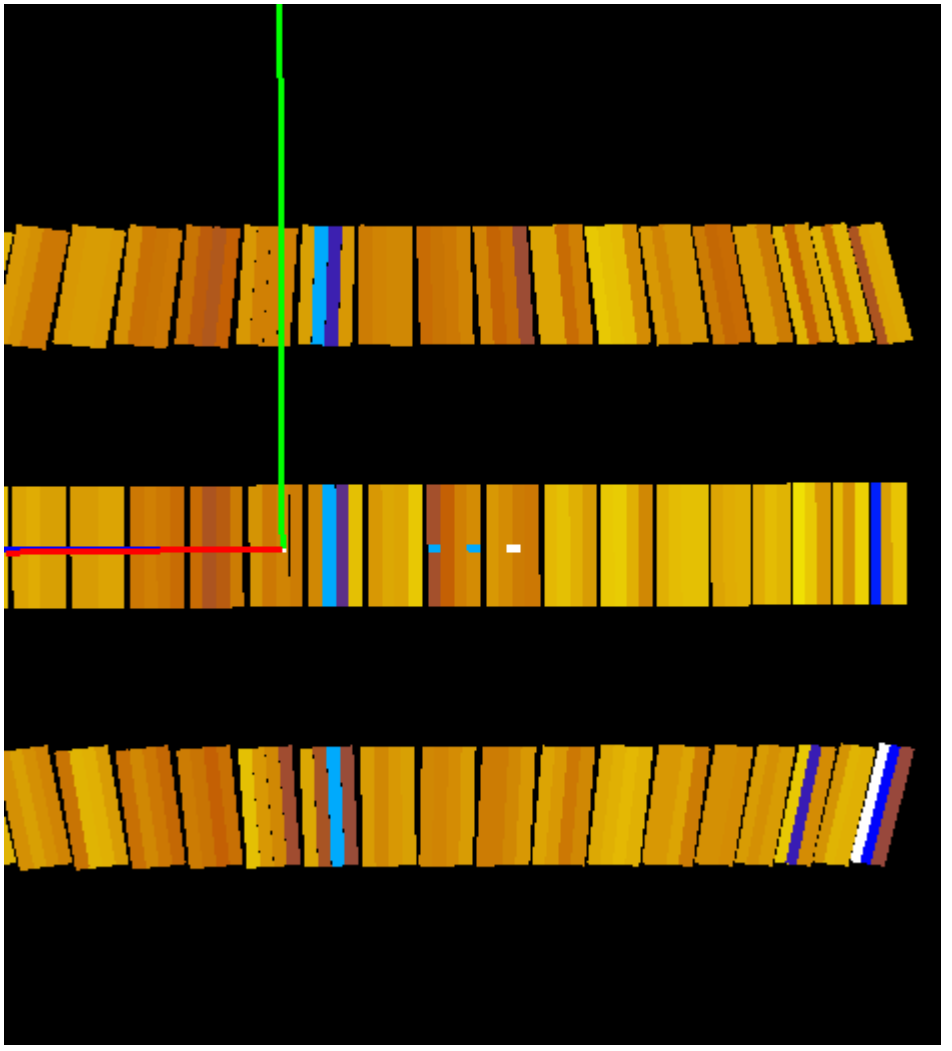
Fig. 4


TITLE : 4He phonon-roton dispersion curve
Energy Transfer (meV)
1.00
0.95
0.90
0.85
0.80
0.75
0.70
1.5
1.6
1.7
1.8
1.9
2.0
2.1
Momentum Transfer (A-1)
tabulated values
with new angles
with old angles

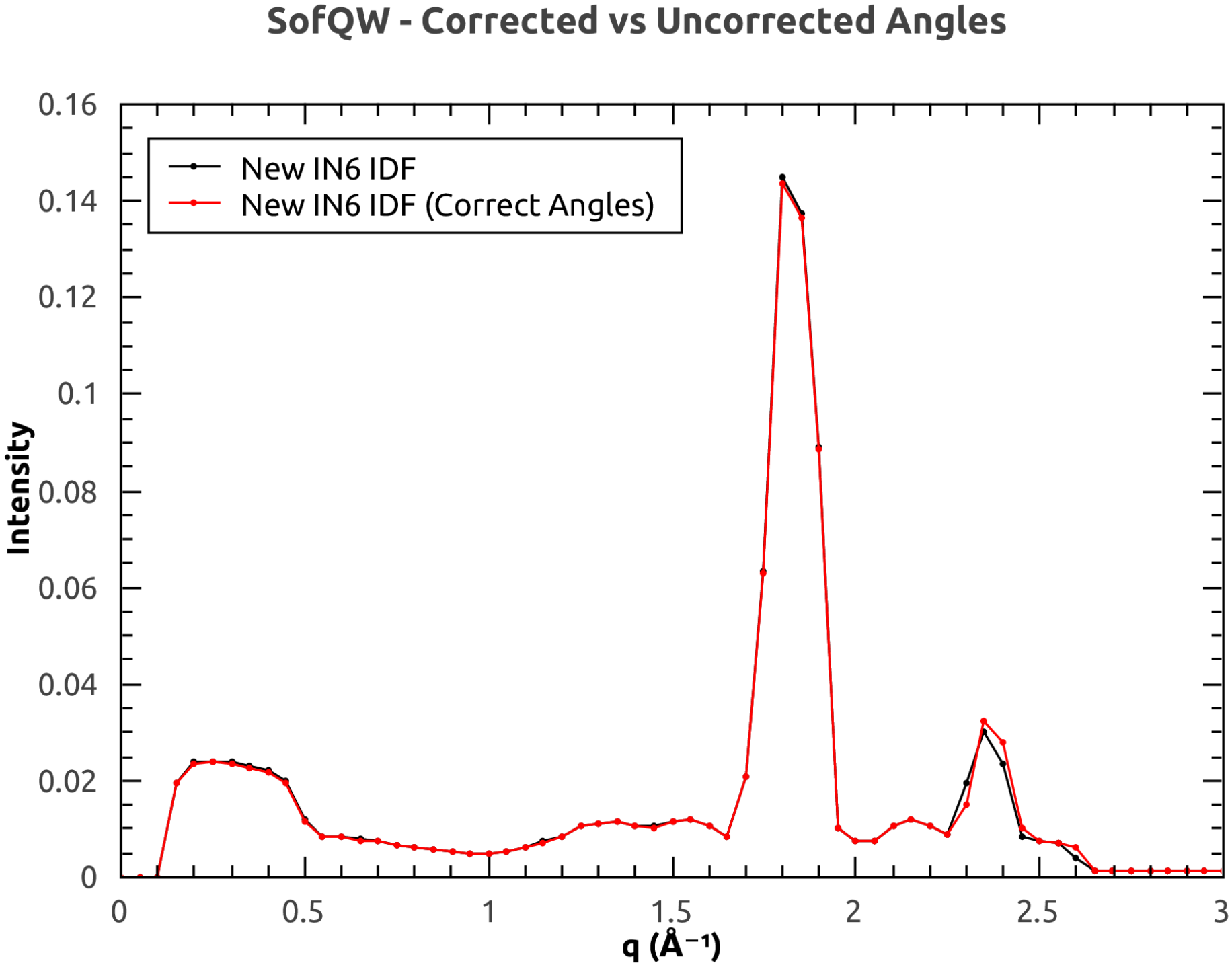
Fix for High Angle Detectors



NeXus File Angles



Lamp Angles


SofQW - Corrected vs Uncorrected Angles
New IN6 IDF
New IN6 IDF (Correct Angles)
Intensity
q (Å⁻¹)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
0.5
1
1.5
2
2.5
3

Work to Do...

- Verify IN6 IDF – does it correspond to the real detector
- Finish generalisation of IN6 IDF generation for IN4 IDF
- Look at other data sets for IN6 data for further verification