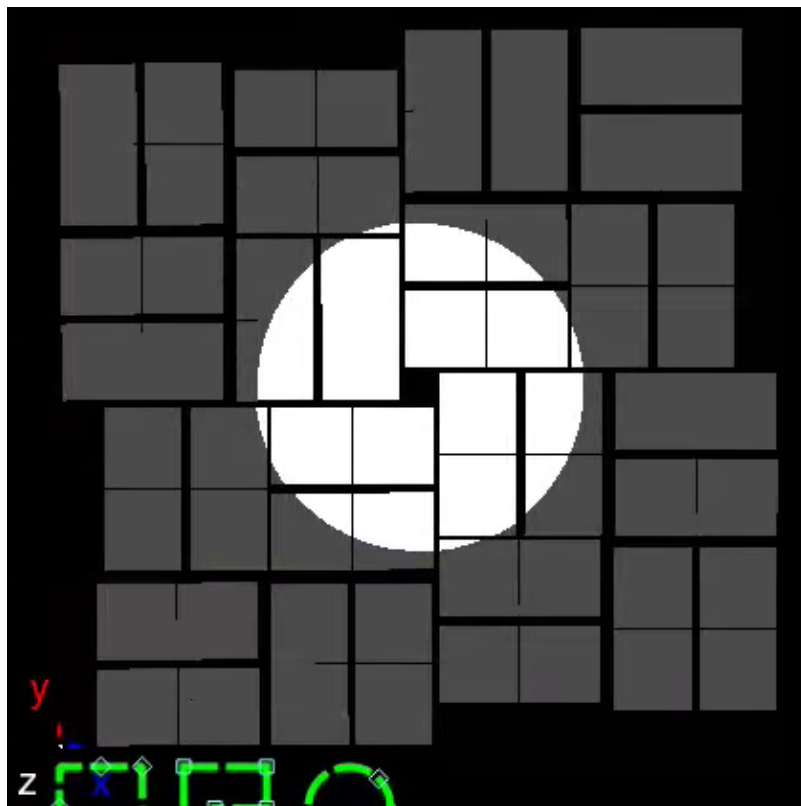# Common mode correction in hybrid gain mode

On a CsPad, a hybrid gain mask can be applied in order to prevent saturating Bragg peaks at lower resolution (gain=6.85), yet maximize the Bragg peaks at high resolution (gain=1).



Case study (07/07/16):

We found that common mode algorithm 5 (unbonded pixel correction) worked much better compared to the default algorithm 1.

1) Qualitatively, the corrected images looked much better.

2) Number of hits found went up by 132% and number of indexed crystals went up by 108%.

3) Rsplit values were 49% vs 84% at 2.18 Angstroms for algorithms 5 and 1, respectively.

Future work:

Separate common mode corrections for the two gain regions on a single asic should improve the results. A cross-talk correction will also need to be developed to improve results.