

Indexing after fraser transformation with $\beta=0$

Update analysis script

- copy cxif5315/proc-cxif5315-r0169-peaks-from-file-v2.py to ...-v3.py and use v3 file in this test
- use the same data after peak_finder_v2
- use the same curve_fit to peaks with free parameters for angles phi and beta
- apply image peak rotation in phi and do fraser transformation for $\beta=0$
- change event selection for all peaks $|q_v| < 0.001 \text{ 1/\AA}$ to $|q_v| < 0.02 \text{ 1/\AA}$
- add histogram for beta evaluated in indexing

Results

phi and beta angles offsets of central values $p_0 = [-3.2, -16.0]$

Plots in h,k and reciprocal space

for all selected events

for $0 < 20^\circ$ and $180 < 200^\circ$

The same plots for V1 of fraser transformation with 0

for all selected events

for $0 < 20^\circ$ and $180 < 200^\circ$

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Problem: beta from fit does not match beta from look-up table

Things to try

- play with tolerance
- when using corrected beta after fit, generate look-up table for $\beta=0$ only
- use bright peaks only for indexing