Data Reduction for TOF-GISANS

J-F Moulin

Helmholtz-Zentrum Hereon

Geometry *per se* not hard, first-time users want to get $I(Q_x, Q_y, Q_z)$ and often do not care about $\Delta(Q)$(!!🚸!!)

- Be extra careful with TOF binning
- Find origin of Q for each λ slice (gravity)
- Compute the angles wrt to this origin (for *BornAgain*)
- The $\Delta\alpha_f$ and $\Delta\Psi_f$ are constant (detector)
- For physics: compute (Q_x, Q_y, Q_z) store each in an array per slice
- Resolution function needs to be evaluated carefully (see my other talk)

Can be compacted:

- Primary beam pixel and a python function + resol. fn. as $I(\Psi_i, \alpha_i \mid \lambda)$ histograms

Data Reduction for TOF-GISANS (contd.)

- Sensitivity mask (λ dependant) and corrected data
- Detector Point Spread Function (λ dependant)
- Incoherent would be nice to know...
- Ideally provide standard samples measurements with same experimental setup
- Use a standard format for reduced data: extend *Orso*