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## Processing Neutron Time-of-Flight Laue Data in DIALS

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The DIALS project[1] provides an open-source, extensible framework to analyse X-ray diffraction data and is now used widely in the X-ray diffraction community. Much of this framework is in principle agnostic to the method used to obtain diffraction patterns. In recent years this has been expanded for continuous-rotation electron diffraction experiments[2], for example, highlighting how DIALS can be adapted to cope with challenges from electron sources such as low diffraction angles and lens distortion. Continuing with this push towards generalised diffraction integration software, we present preliminary results for how DIALS can be used to process neutron time-of-flight Laue diffraction patterns obtained from the Single Crystal Diffractometer (SXD) at ISIS[3].

Here we will show how DIALS has been adapted for polychromatic data, allowing not only the processing of time-of-flight Laue data, but opening up the possibility of processing Laue, and quasi-Laue experiments. Changes to refinement, integration, and visualisation will be discussed, including a browser-based GUI for streamlined model reduction workflows.

[1] Winter G., Waterman D. G., Parkhurst J. M., Brewster A. S., Gildea R. J., Gerstel M., Fuentes-Montero L., Vollmar M., Michels-Clark T., Young I. D., Sauter N. K., Evans G. (2017). *Acta Crystallogr. D.* 74, 85-97

[2] Clabbers T. B., Gruene T., Parkhurst J. M., Abrahams J. P., & Waterman D. G. (2018). *Acta Crystallogr. D.* 74, 506-518

[3] Keen D. A., Gutmann M. J., & Wilson C. C. (2006). *J. Appl. Cryst.* 39, 714-722

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