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## The upgarded cold neutron diffraction instrument DMC

*Monday, 20 March 2023 16:00 (2 hours)*

The cold neutron diffractometer DMC at SINQ, Paul Scherrer Institute, Switzerland, has recently undergone a major upgrade, and I will present the highlights. The cold neutron guide is upgraded, and DMC is now equipped with a large 2D neutron detector. Special features are high detection efficiency, large solid angle coverage and two-dimensional readout. For powder diffraction experiments we observe an order of magnitude higher count rate, still maintaining the low background of the old DMC instrument, expanding the experimental possibilities which were not feasible at SINQ so far. The 2D detector also opens for single crystal diffraction experiments and especially efficient mapping of large areas of reciprocal space and diffuse scattering. Features of the DMCpy software used for data treatment will also be presented.

**Primary author:** FJELLVAG, Oystein (Paul Scherrer Institute)

**Co-author:** Dr KELLER, Lukas (Paul Scherrer Institute)

**Presenter:** FJELLVAG, Oystein (Paul Scherrer Institute)

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