

# IAEA Training Workshop: Advanced Use of Neutron Imaging for Research and Applications: AUNIRA



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## Neutron grating interferometry I

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Neutron grating interferometry (nGI) allows to detect (magnetic) structures below the real space resolution of an imaging instrument by analysing the ultra-small-angle scattering of these structures. Hence, this technique allows to indirectly localize structures from 15  $\mu\text{m}$  to 0.5  $\mu\text{m}$ . One use is to generate a 2D-map of the magnetic properties of samples.

In the talk the theory and principles used in nGI are presented.

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