

Time Resolved
X-ray Resonant Magnetic Scattering
Collective Magnetic Properties
in Arrays of Nano-objects

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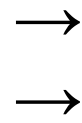
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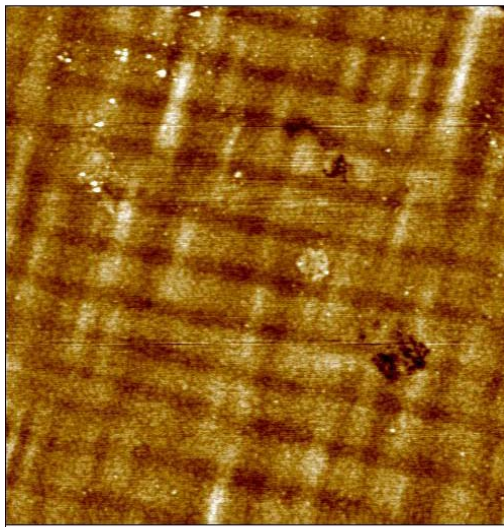
Mauro Fabriziooli, Patrizio Candeloro, Enzo DiFabrizio and Giancarlo Panaccione
INFN and ELETTRA, Trieste

Soft X-rays

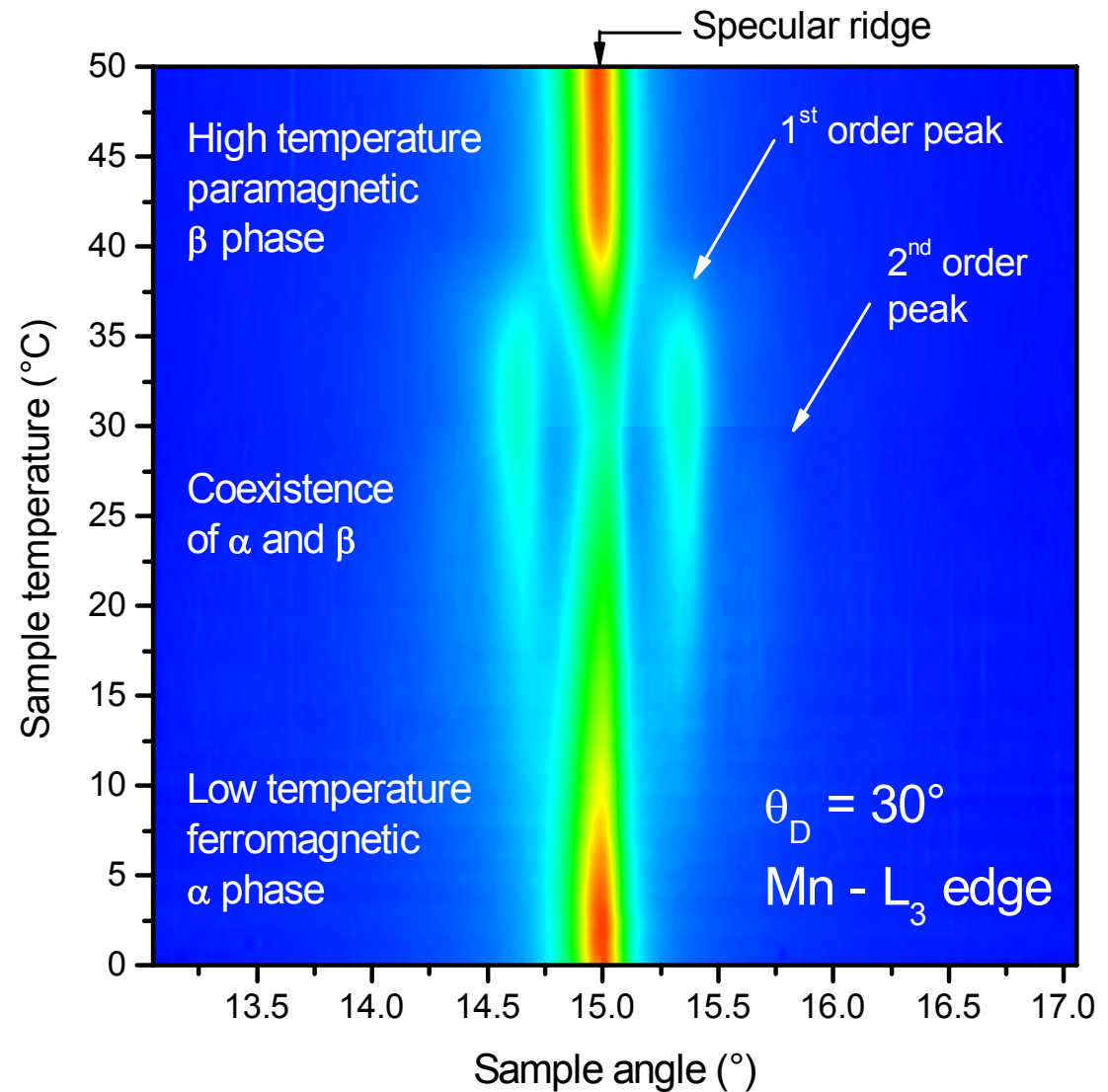


Wavelength : ~ Tens of Å
Nanostructures - Domains - Aggregates

Stripe domains in MnAs/GaAs(001)
Coexistence of two structural phases over a narrow temperature range

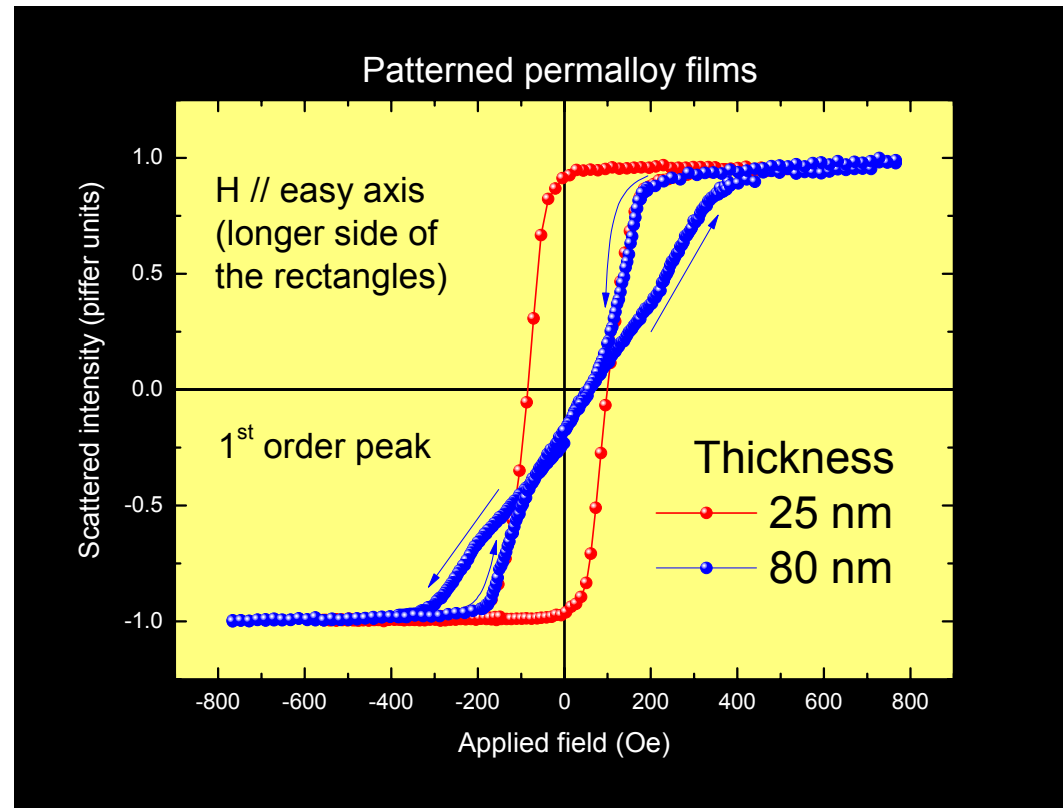
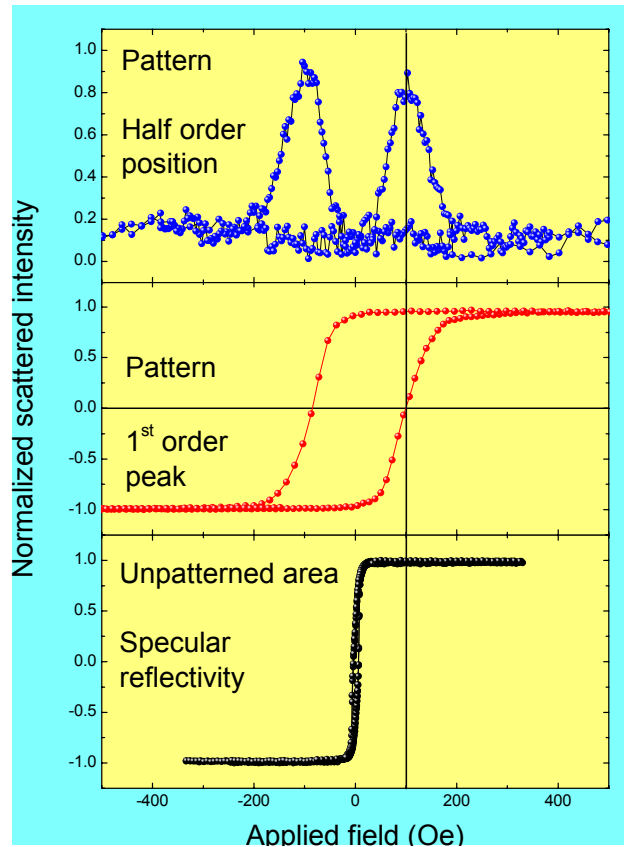
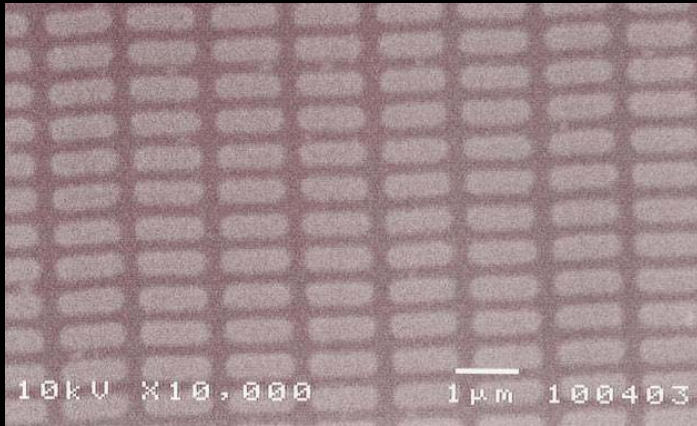


0 6.00 μ
Data type Height
Z range 20.00 nm

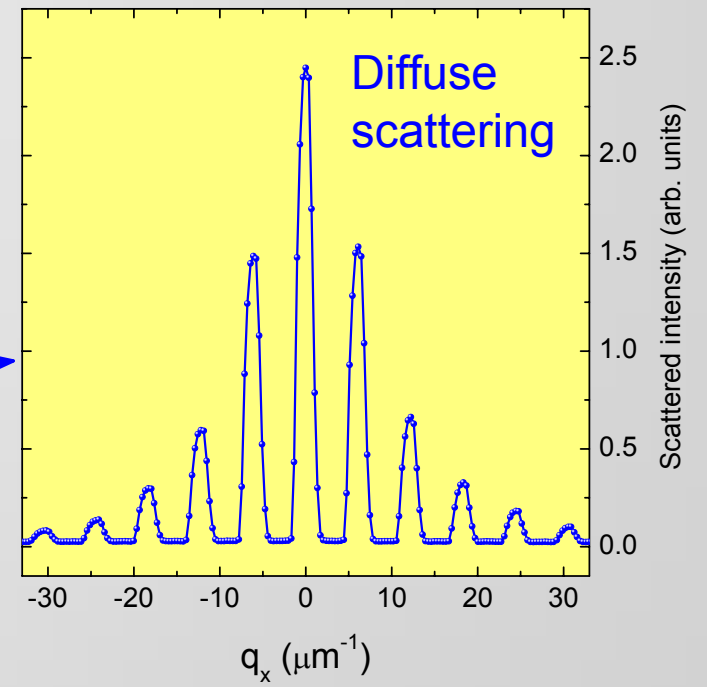
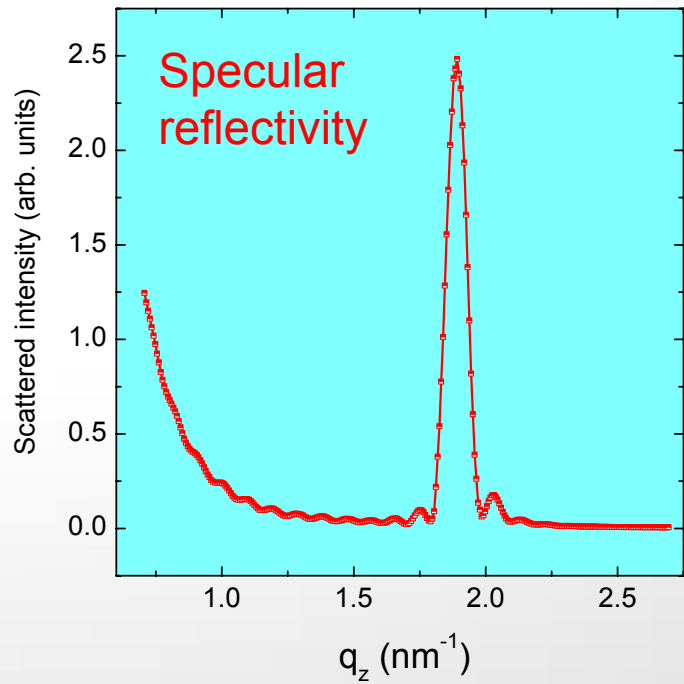


Patterned magnetic films

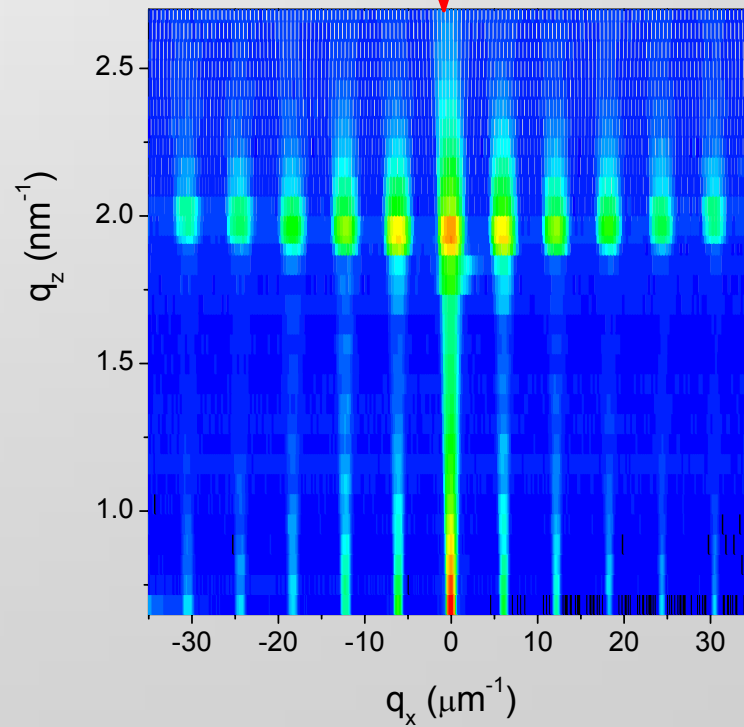
Arrays of Permalloy nanodots



Multilayer grating
Co/Cu
 $h\nu = 777$ eV



Vertical
periodicity
of the
multilayer



Lateral
periodicity
of the
pattern

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Resonant X-ray Scattering from Magnetic Multilayer Gratings

Reflectometer IRMA - Beamline SU 7 - SuperACO

