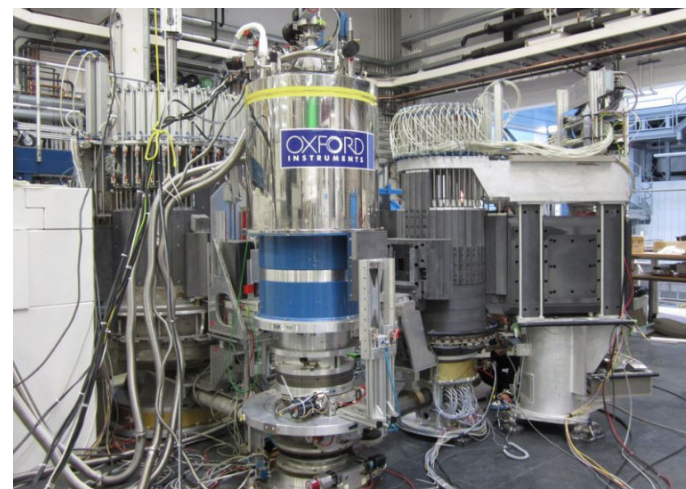
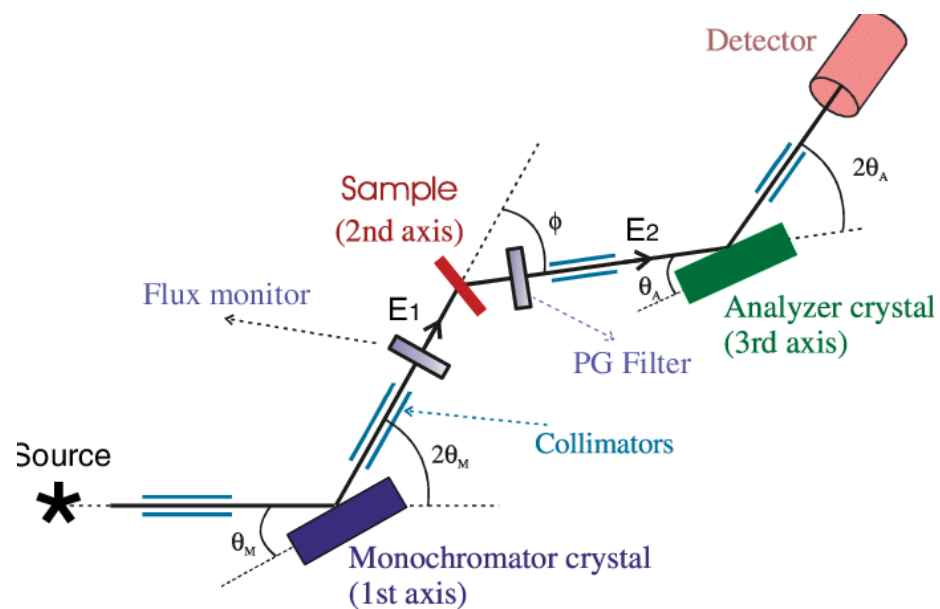




How is it measured?
Inelastic / quasielastic

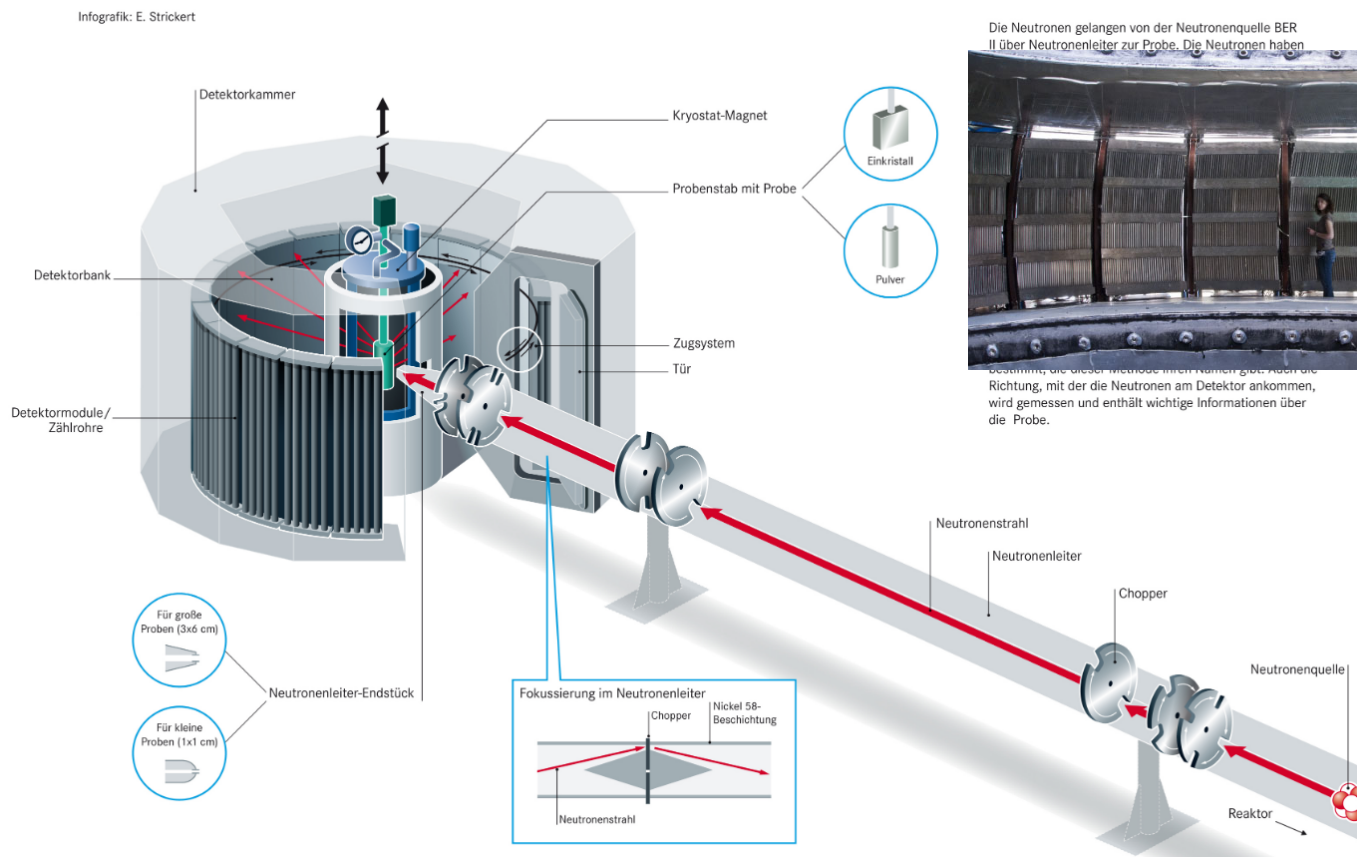
Inelastic/quasielastic neutron scattering: triple axis

Used to measure crystalline samples since is the only that really measures $S(\vec{Q}, \omega)$



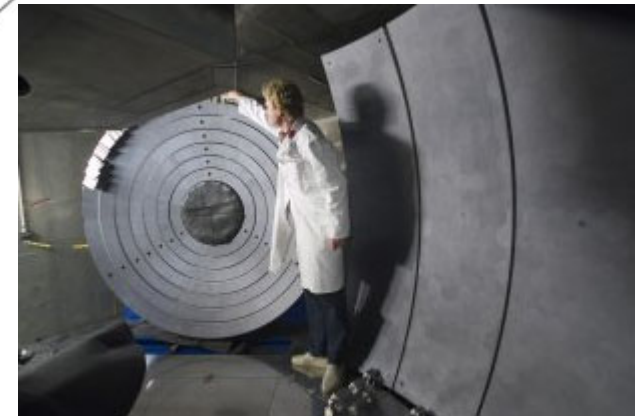
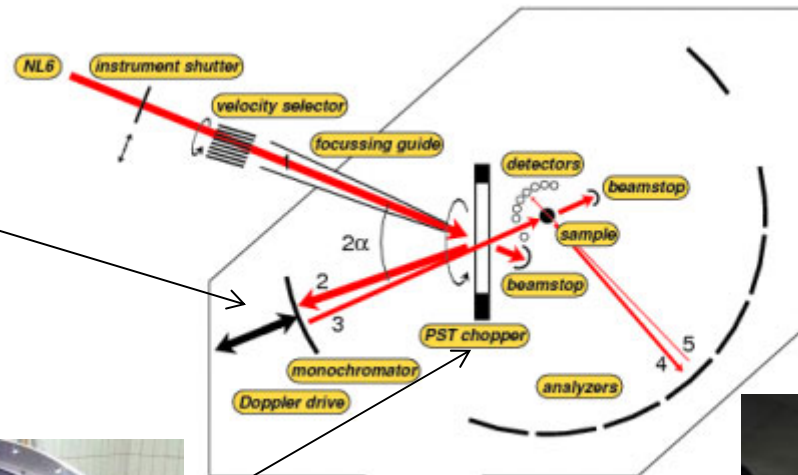
Inelastic/quasielastic neutron scattering: time of flight device

standard resolution, huge energy range
very versatile!



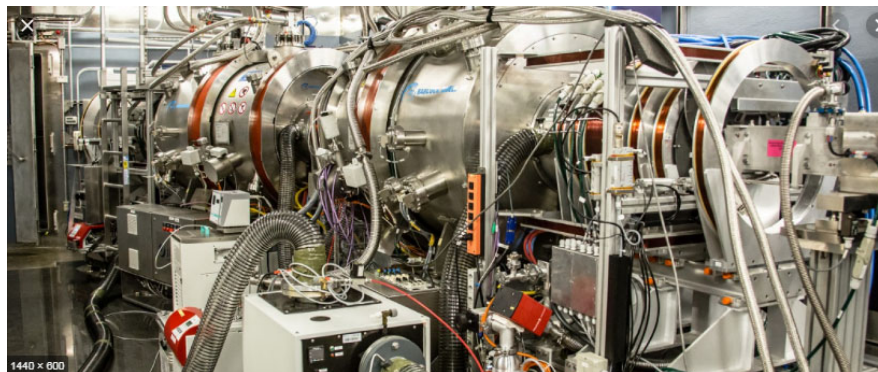
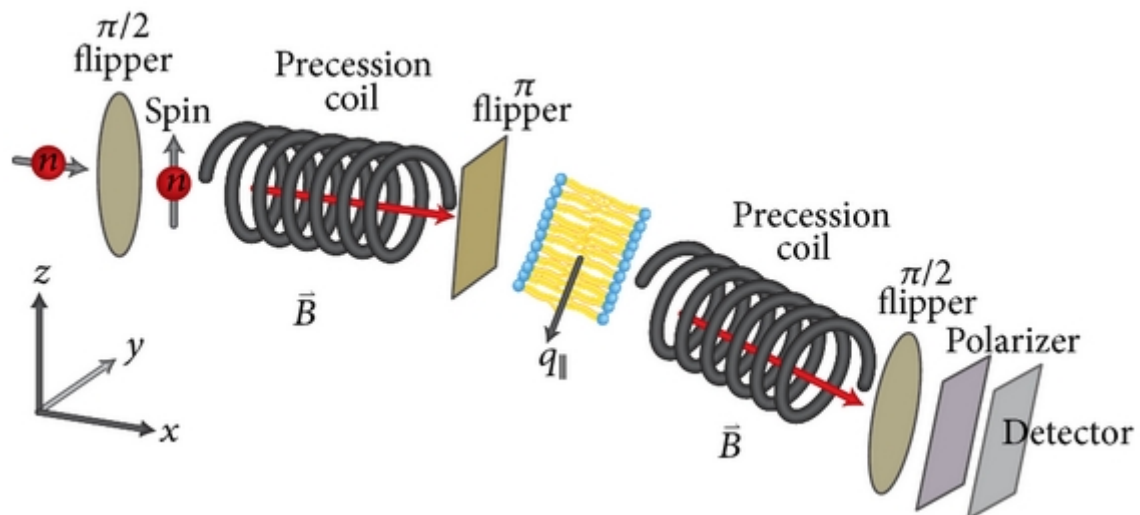
Inelastic/quasielastic neutron scattering: backscattering

*high resolution, small energy range
only for fast motions*



Inelastic/quasielastic neutron scattering: Spin echo

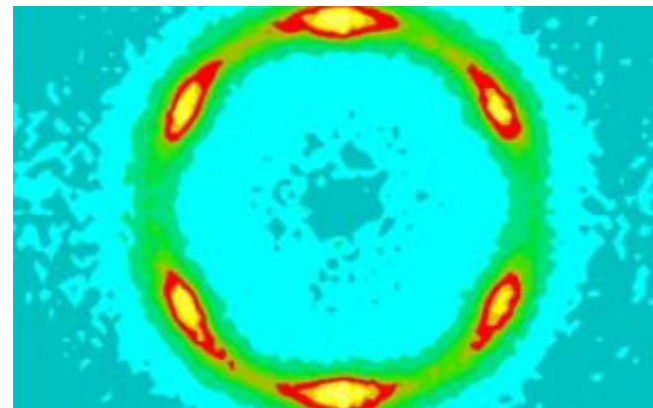
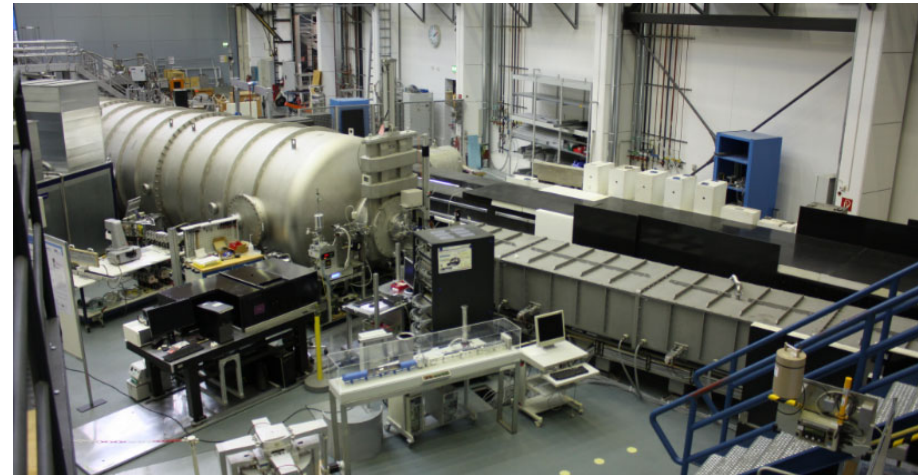
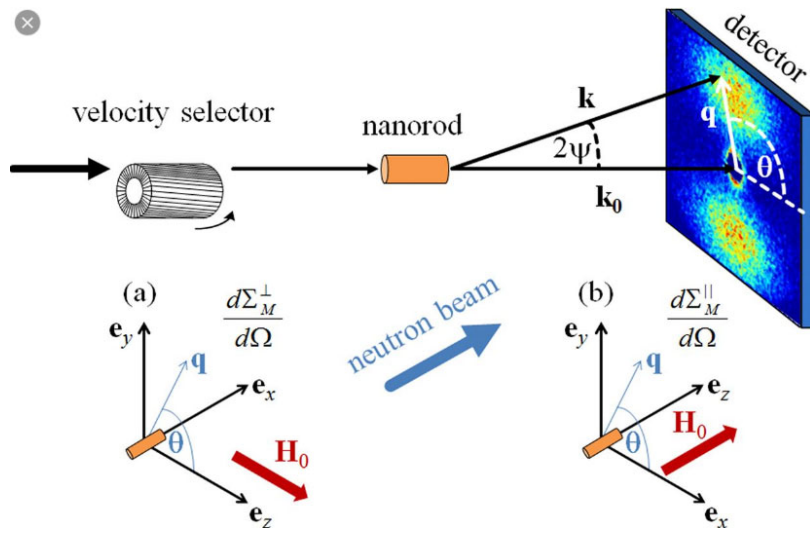
high resolution, small energy range
only for very fast motions
measure in time, not energy!!!! $I(Q, t)$



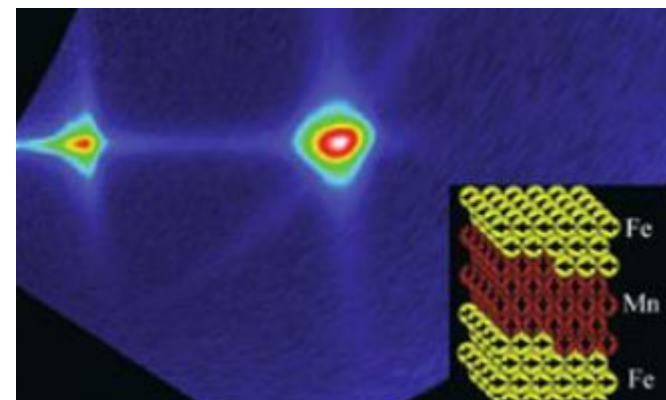
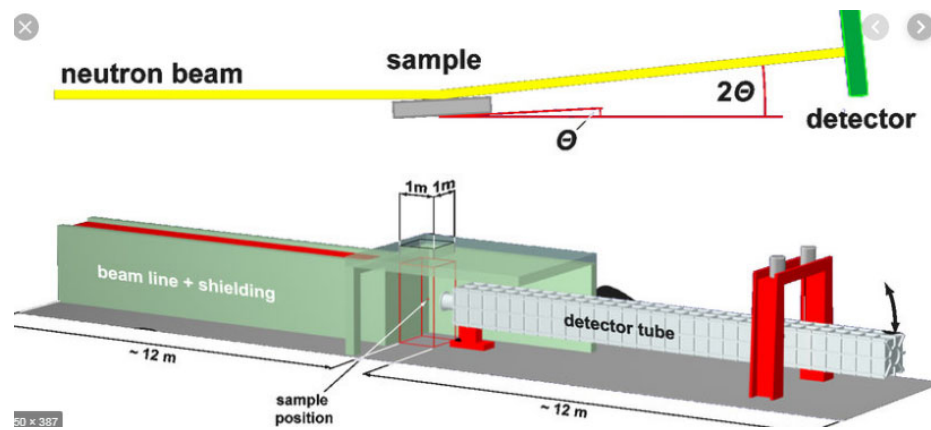


*How is it measured?
diffraction*

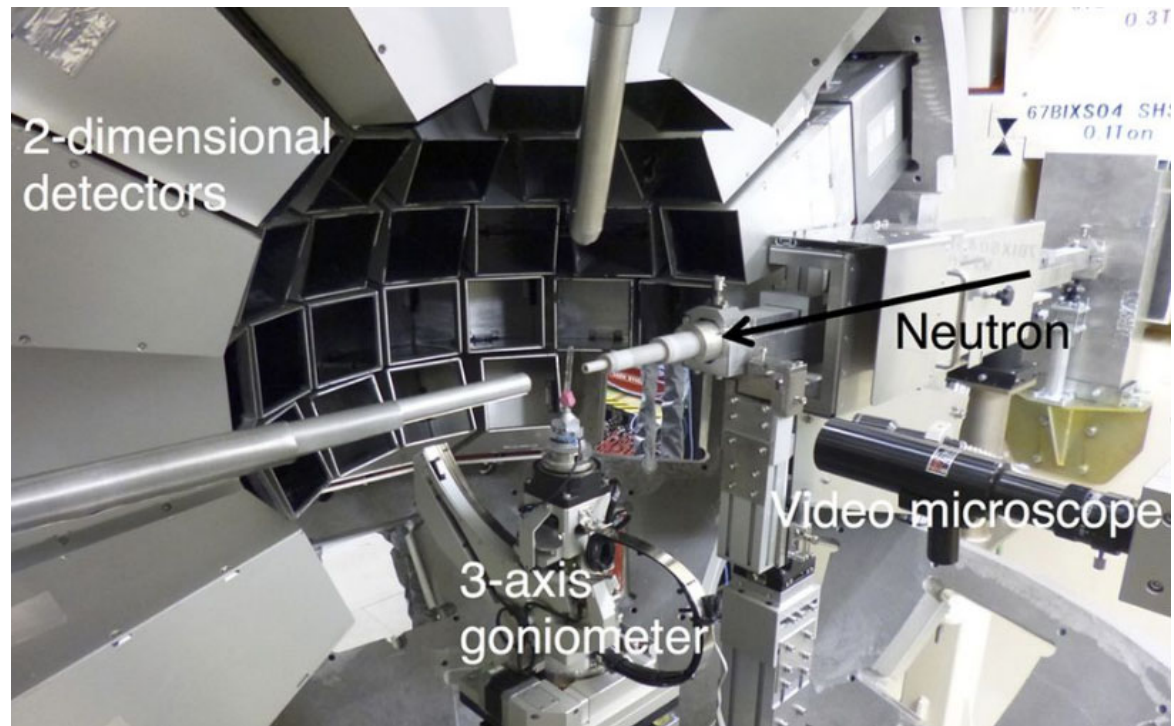
Small angle neutron scattering (sans)

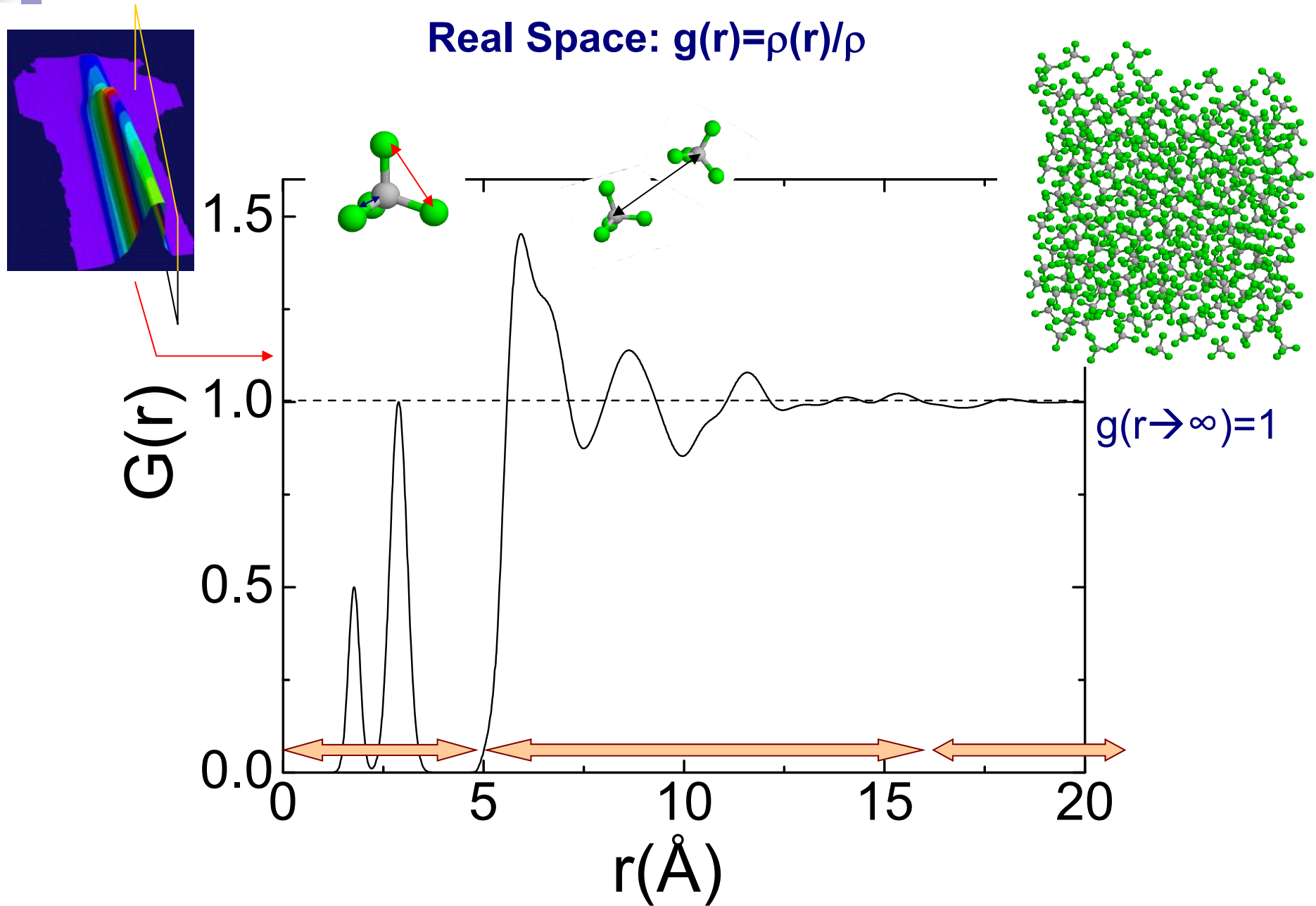


Reflectometry

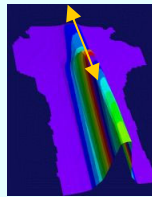


Single crystal diffraction

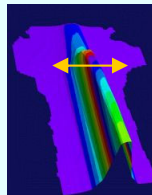
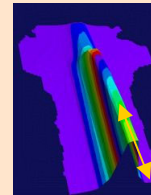




Structure

*A single particle***INCOHERENT
ELASTIC**

Dynamics

**INCOHERENT
INELASTIC***Colective motions***COHERENT
ELASTIC****COHERENT
INELASTIC**