

Engineering materials research with high-energy X-rays –GEMS at DESY

Wednesday, 26 June 2019 11:00 (20 minutes)

The possibilities of neutron scattering and imaging for materials science are perfectly complemented by those offered by high-energy X-rays from a synchrotron source. While neutrons stand out with their large penetration depths and contrast and magnetic properties, the synchrotron offers high enough intensities to achieve sufficient time resolution for studying fast processes. In addition, with focussing spatial resolutions in the 10 ...100 nm range can be achieved. With high-energy photons, even thick samples can be penetrated. The status of the GEMS beamlines at the photon source PETRA III at DESY in Hamburg and new developments will be reported. A few examples of the latest in-situ experiments at the high-energy materials science beamline (HEMS/P07) will be presented.

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Session Classification: Science group meetings 1