TUC-MLZ Texture School October 15th 2013

From Area Detector pictures to pole figures



09:00: 09.10	Welcome address
09:10 – 09:50	Lecture: Introduction in crystallographic textures
09:50 – 10:20	Lecture: Pole figure measurement using area detectors
10:20 – 10:50	Lecture: Principle ways of data treatment (individual peak, Rietveld refinement)
10:50 11:10	Coffee break
11:10 – 11:40	Introduction in pole figure extraction by STECA - Software
11:40 – 12:40	Practical: STECA
12:40 14:00	Lunch break
14:00 - 14:30	Introduction in pole figure extraction by SABO
14:30 – 15:30	Practical: Sabo
15:30 16:30	Coffee break
16:30 – 17:00	Introduction in MAUD (Materials Analysis Using Diffraction)
17:00 – 18:00	Practical: MAUD

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Interpretation of pole figures





09:00 - 09:45	Lecture: Definition of the pole figure (type of projection, pole figure window, pole figure statistics, number of pole figures, normalisation, RP-values)
09:45 – 10:15	Lecture: Basic information's of pole figures
10:15 10:45	Coffee break
10:45 – 12:45	Practical: Pole figure extraction for a later interpretation - STECA, SABO or MAUD -
12:45 14:00	Lunch break
14:00 – 15:00	Practical: Interpretation of pole figure symmetry and its meaning Example 1, 2, 3
15:00 – 15:30	Introduction in Ideal components, fibers and orientation bands
15:30 – 16:30	Practical: Ideal components (hkl) <uvw> , ideal fiber texture and orientation bands</uvw>
16:30 16:45	Coffee break
16:45 – 17:45	Crystallographic relation between pole figures (cubic, hexagonal)

18:30 – ????? Social evening

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Interpretation of the orientation distribution function





09:00 - 09:45	Lecture: Introduction in the orientation distribution function (ODF)
09:45 – 10:00	Basic information's on how to calculate the ODFs
10:00 10:30	Coffee break
10:30 – 12:45	MTEX a MATLAB [™] toolbox for quantitative texture analysis
12:45 14:00	Lunch break
14:00 – 14:20	ODF calculation by the iterative series expansion method
14:20 - 15:30	Practical: ODF calculation by the iterative series expansion method
15:30 16:00	Coffee break
16:00 – 17:00	Practical: Interpretation of ODFs (ideal components ϕ 1, Φ , ϕ 2) ideal fiber texture and orientation bands)

17:00 Stress-Spec visite		
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