APT Winter School

In this three-day intensive course, we cover APT fundamentals in combination with selected topics in APT data science. The focal subjects in this iteration will be APT reconstruction for reflectron and straight flight path instruments as well as interface modeling and analysis. We will be using our in-house-developed MATLAB toolbox and Blender for reconstruction and analysis. In the interface analysis section, we will cover proxigrams, local proxigrams and local and global interfacial excess analysis. Participants are invited to work along on their own computer during the course. Reference data will be provided. This course requires some basic familiarity with APT data analysis using MATLAB and object modelling in Blender. This can be acquired by going through the 2022 APT winter school prerequisites playlist available on Peter Felfer's Youtube Account.

https://youtube.com/playlist?list=PLLr-VNeczShDzrm-wdIyz9ORjFL5KDeYT

Software prerequisites for active participation:
MATLAB (Version 2020 or newer) and Blender 3.0 and up.

Registration is required by the 15th of February 2022
by email to Martin Weiser (martin.weiser@fau.de)
with title, first and last name, institution and email address.

	16th February	17th February	18th February
Topic	Introduction	APT reconstruction	Interface analysis
9:00 - 10:30	Atom probe fundamentals	Reconstruction fundamentals	Interface modelling
break			
11:00 - 12:30	Field evaporation physics	Image correction for reflectron and straight flight path	Proxigrams and nD analysis
break			
13:30 - 15:00	APT instrumentation	Reconstruction and crystallographic calibration	Local proxirams and concentration mapping
break			
15:15 - 16:45	APT sample preparation	Object based reconstruction calibration	(Local) interfacial excess calculation and mapping

The final program and download information will be provided via email before the event.

Free of charge

Organized by the Atom Probe Tomography and 3D Nonanalytic Group @ FAU

Prof. Dr. Peter Felfer and Dr.-Ing. Martin Weiser

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