



Invitation to ESTEEM3 Workshop June 21-23, 2022

## Electron diffraction for solving engineering problems

A workshop on *Electron diffraction for solving engineering problems* will be organized at NTNU in Trondheim, Norway, 21.-23. June 2022. This year's workshop will focus on how we can use electron diffraction in TEM and SEM –how to deal with 'real' materials, the possibilities given by better cameras, and post processing and data analysis on how to get the most out of your results. In this three days' workshop, invited experts and skilled educators in this field will address the essentials and the latest developments through lectures, computer exercises and hands-on practical sessions using the NORTEM infrastructure in Trondheim. Lectures will cover different qualitative and quantitative methods in electron diffraction and how they can be used for engineering problems. We start every morning with lectures. In the afternoons, experiment demos on the TEMs and computer practices on data analysis will be given. We will teach how to use various open-source scientific Python packages to analyze diffraction data. If (because of Covid) physical presence will be difficult, the workshop will be transferred to a digital format, with lectures and computer exercises.

-We invite PhD students, postdocs and researchers working with TEM and SEM in the physical sciences to participate!

See <https://www.ntnu.edu/temgemini/esteem3> for more details and updated info!

### Invited speakers and course leaders:

- [Paul Midgley](#), Cambridge University, UK
- [Stefan Zaefferer](#), MPI Düsseldorf, Germany
- [Tina Bergh](#), NTNU, Norway

Local staff ([Håkon Wiik Ånes](#), [Emil Frang Christiansen](#) and [Magnus Nord](#)) will participate in running computer exercises.

Each day there will be lectures from 09 to 11, lunch and discussions from 11 to 13 and lab/computer exercises between 13 and 16.

### Registration:

Participation is free, but you have to register before 1.June 2022.

Registration can be done here; <https://nettskjema.no/a/esteem3-trondheim>

There will be a maximum of 24 participants in the afternoon practice sessions. In case of large interest, priority will be given to early career scientists active in the field.

### Questions?

Contact Randi Holmestad, [randi.holmestad@ntnu.no](mailto:randi.holmestad@ntnu.no), Department of Physics, NTNU.

TEM Gemini Centre: <https://www.ntnu.edu/physics/temgemini>