

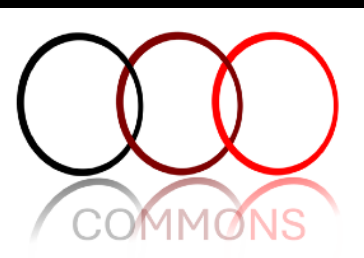
First circular

1st COMMONS Summer School on “Cryo-EM of Soft Materials” in Lund

August 25 - 29, 2025

Kemicentrum, Naturvetarvägen 22, Lund

Lecturer: Professor **Ishi Talmon**,
Technion - Israel Institute of Technology



What to expect

Intensive course focusing on cryogenic-temperature transmission electron microscopy (cryo-TEM) and scanning electron microscopy (cryo-SEM) of soft matter, with lectures in the morning and demonstrations of the microscopes & specimen preparation as well as short student presentations in the afternoon

What else you need to know

- up to 20 participants will be accepted
- priority will be given to COMMONS-PhD students
- remaining places will be available to COMMONS-postdocs and PhD students outside of COMMONS
- participation is free of charge
- COMMONS will be able to provide accommodation to PhD students and postdocs from COMMONS-affiliated groups

Registration is open under:

<https://www.physchem.lu.se/commons/research-school/>

Deadline for registration: 1st of April, 2025

Tentative program:

time	Monday, 25.8.	Tuesday, 26.8.	Wednesday, 27.8.	Thursday, 28.8.	Friday, 29.8.
09:00 – 09:45	Welcome – Emma Sparr, Director of COMMONS L1 – Introduction	L4 – Limitations on TEM resolution; astigmatism; contrast	L7 – Cryo-TEM II	L10 – Imaging by the SEM	L13 – Freeze-fracture- replication; contrast in cryo-SEM
09:45 – 10:15	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
10:15 – 11:00	L2 – Basics of TEM and SEM	L5 – Basics of electron diffraction	L8 – Electron beam radiation damage; imaging artifacts	L11 – Cryo-SEM I	L14 – Elemental analysis in cryo-SEM
11:00 – 11:15	break	break	break	break	break
11:15 – 12:00	L3 – Electromagnetic lenses; electron sources; apertures, etc.	L6 – Cryo-TEM I	L9 – Elements of the SEM	L12 – cryo-SEM II	L15 – Designing cryo- EM research projects
12:00 – 13:00	Lunch break	Lunch break	Lunch break	Lunch break	Lunch & end of Summer School
13:30 – 15:00	Microscopy Lab Demo Sessions	Microscopy Lab Demo Sessions	Microscopy Lab Demo Sessions	Microscopy Lab Demo Sessions	
15:30 – 18:00	Student presentations and discussions	Free afternoon/evening	Student presentations and discussions	Free afternoon/evening	
18:00 –	Dinner		Dinner		