

Mesoscopic Physics school timetable

2D materials, superconductivity and superconducting circuits, quantum transport and hybrid systems: theories and experiments

Arrival: Monday 30th September 2024

Departure: Saturday 12th October 2024

1st week

	Tuesday 1 st	Wednesday 2 nd	Thursday 3 rd	Friday 4 th	Saturday 5 th
08:50 – 09:00	Opening				
09:00 – 10:30	Course 1 - A	Course 3 - A	Course 1 - A	Course 3 - A	Links A
10:30 - 11:00	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:00 – 12:00	Course 2 - A	Course 2 - A	Course 2 - A	Course 4 - A	Focus 3
12:00 - 15:00	Lunch	Lunch	Lunch	Lunch	Lunch
15:00 - 16:00	Discussion	Discussion Courses 1-2	Discussion Courses 3-4	Discussion Courses 1-2	Discussion Courses 3-4
16:00 – 16:30	Coffee	Coffee	Coffee	Coffee	Coffee
16:30 – 18:00	Focus 1	Focus 1	Focus 2	Focus 2	Link A
18:00 - 19:00	Course 4 - A	Posters - A	Course 4 - A	Posters - B	Course 4 - A
19:00	Welcome Drinks				Recap week 1

2nd week

	Monday 7 th	Tuesday 8 th	Wednesday 9 th	Thursday 10 th	Friday 11 th
09:00 – 10:30	Course 1 - B	Course 3 – B	Course 1 – B	Course 3 – B	Links B
10:30 - 11:00	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:00 – 12:00	Focus 3	Course 2 - B	Focus 3	Course 2 - B	Course 2 - B
12:00 - 15:00	Lunch	Lunch	Lunch	Lunch	Lunch
15:00 - 16:00	Discussion	Discussion Courses 1-2	Discussion Courses 3-4	Discussion Courses 1-2	Discussion Courses 3-4
16:00 – 16:30	Coffee	Coffee	Coffee	Coffee	Coffee
16:30 – 18:00	Focus 4	Course 4 – B	Focus 4	Course 4 – B	Links B
18:00 - 19:00	Posters - A		Posters - B	Start-Up Session 1	Recap week 2 and Closing
19:00				IESC Dinner	

Invited lecturers and speakers:

Course 1: Quantum Transport

- Geraldine Haack – **Coherent transport of charges and heat in mesoscopic devices**
- Xavier Waintal – **Coherent transport of charges and heat in mesoscopic devices**
- **Focus:** Gwendal Fève - Anyons in mesoscopic conductors

Course 2: Mesoscopic Superconductivity and Quantum Circuits

- Landry Bretheau – **Mesoscopic superconductivity**
- Quentin Ficheux – **Quantum superconducting circuits**
- **Focus:** Alexia Auffèves – Quantum energy

Course 3: 2D Systems

- Eva Andrei – **Introduction to 2D materials and twistrionics**
- Leni Bascones – **Correlations and topology in 2D materials**
- **Focus:** Adolfo Grushin – Weyl semimetals and topological insulators

Course 4: Hybrid Systems

- Samuel Deleglise* – **Optomechanical Systems**
- Sophie Gueron – **Hybrid systems built from Nanowires**
- **Focus:** Andrea Hofmann* – **Semiconductor-superconductor devices**

Links:

- **François Parmentier – Heat transport in graphene**
- **Carmen Rubio-Verdú – STM measurements in twisted 2D materials**

Invited Start-Ups:

- Chipiron
- Quobly
- C12*
- Alice & Bob
- Silent Waves*

*TBC