The CAMD Summer School
Electronic Structure Theory and Materials Design 2018

Program:

Sunday, August 12:

11:30-13:15	Registration and lunch
13:15-13:30	Welcome
13:30-14:30	Fundamentals of DFT and TDDFT - *tutorial* (Hardy Gross)
14:30-15:00	Coffee break
15:00-16:00	Electronic structure tools: ASE and GPAW - *tutorial* (Jakob Schiøtz)
16:00-18:00	Computer exercises
19:00	Dinner

Monday, August 13:

06:30-09:30	Breakfast
09:30-10:30	Rate Theory (Hannes Jonsson)
10:30-11:00	Coffee break
11:00-12:00	Computational Design in Catalysis (Jens Nørskov)
12:00-13:30	Lunch
13:30-14:30	Structures and Reactions at Surfaces (Bjørk Hammer)
14:30-15:00	Coffee break
15:00-16:00	Electrochemistry - *tutorial* (Jan Rossmeisl)
16:00-18:00	Computer exercises
18:00-20:00	Poster session

Tuesday, August 14:

06:30-09:30	Breakfast
09:30-10:30	Many-Body Perturbation Theory - *tutorial* (Georg Kresse)
10:30-11:00	Coffee break
11:00-12:00	Theoretical Spectroscopy (Claudia Draxl)
12:00-13:30	Lunch
13:30-14:30	2D materials (Nicola Marzari)
14:30-15:00	Coffee break
15:00-16:00	Excitations in 2D materials (Kristian S. Thygesen)
16:00-18:00	Computer exercises
19:00	Dinner

Wednesday, August 15:

06:30-09:00	Breakfast
09:00-10:00	Machine Learning Basics (Karsten W. Jacobsen)
10:00-10:30	Coffee break
10:30-11:30	Machine Learning and Materials Science (Christopher Wolverton)
11:30-12:30	Lunch
12:30-13:30	Machine Learning and Chemistry (Anatole von Lilienfeld)
13:30-14:30	Machine Learning and Structural Search (Bjørk Hammer)

Rest of the day: Excursion and social dinner

Thursday, August 16:

06:30-09:30	Breakfast
09:30-10:30	Spin-orbit physics (Thomas Olsen)
10:30-11:00	Coffee break
11:00-12:00	Topological States of Matter (Yan Sun)
12:00-13:30	Lunch
13:30-14:30	Materials Informatics (Thomas Bligaard)
14:30-15:00	Coffee break
15:00-16:00	Discovery of Novel Electronic Materials (Stefano Curtarolo)
16:00-18:00	Computer exercises
19:00	Dinner

Friday, August 17:

06:30-09:30	Breakfast
09:30-10:30	Materials Modelling for Solar Cells: Perovskites and Beyond (Aron Walsh)
10:30-11:00	Coffee break
11:00-12:00	Batteries (Tejs Vegge)
12:00-13:30	Lunch
13:30-14:30	The Future of DFT (Kieron Burke)
14:30-15:00	Closing remarks