Advanced Electronic Structure Methods in Condensed Matter Physics

July 8th - 10th, 2019
EPFL, Lausanne, Switzerland

About

This 3-day Summer School aims at providing an overview of advanced methodologies in computational condensed matter physics, including density functional theory, many-body approaches, molecular dynamics simulations, and machine learning techniques. The event consists of lectures given by internationally renowned speakers. A poster session will be held in order to foster interactions between participants.

Invited Speakers

Efthimios Kaxiras (Harvard Univ.)	Introduction to Density Functional Theory
Giulia Galli (Univ. of Chicago)	Hybrid Density Functionals
Alexandre Tkatchenko (Univ. of Luxembourg)	Van der Waals Density Functional Theory
Matteo Cococcioni (Univ. of Pavia)	Hubbard-Corrected Density Functional Theory
Feliciano Giustino (Univ. of Oxford)	Electron-Phonon Interactions
Lucia Reining (Ecole Polytechnique)	Green's Functions & *GW* Approximation
Jeffrey Neaton (UC Berkeley)	Bethe-Salpeter Formalism
Mark Casida (Univ. Grenoble-Alpes)	Time-Dependent Density Functional Theory
Jürg Hutter (Univ. Zürich)	RPA and MP2 Methods
Eva Pavarini (Forschungszentrum Jülich)	Dynamical Mean Field Theory
Sandro Scandolo (ICTP)	Ab Initio Molecular Dynamics
Rocco Martinazzo (Univ. of Milan)	Quantum Dynamics
Jeremy Richardson (ETHZ)	Path Integrals
Michele Ceriotti (EPFL)	Machine Learning & Electronic Structure
Gábor Csányi (Univ. of Cambridge)	Machine Learning & Molecular Dynamics

Organizers

Michele Pizzochero (EPFL)

Sophie Beck (ETHZ)

Stefano Falletta (EPFL)

Patrick Gono (EPFL)

Scientific Support

Prof. Oleg Yazyev (EPFL)

Prof. Nicola Spaldin (ETHZ)

Prof. Alfredo Pasquarello (EPFL)

Prof. Nicola Marzari (EPFL)

Register

https://sites.google.com/view/eth-electronic-structure-2019

Deadline: May 31st

Registration Fee:

PhDs & Post-docs: CHF 150

Students: CHF 50

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