#### **November 3 | Monday**

**Density Functional Theory for Materials Modeling** 

09:00-10:40

Introduction to Density Functional Theory

Coffee Break

11:00-12:30

Introduction to Density Functional Theory + Linear Algebra Use in DFT Codes

**Lunch Break** 

14:00-15:30

Practical Sessions with Siesta

Coffee Break

16:00-17:40

Practical Sessions with Siesta

**Poster Session** 

## **November 4, Tuesday**

**Quantum Monte Carlo Methods for Accurate Materials Simulations** 

09:00-10:40

Introduction to Quantum Monte Carlo

Coffee Break

11:00-12:30

Introduction to Quantum Monte Carlo + Linear Algebra use in QMC Codes

**Lunch Break** 





14:00-15:30

Practical Sessions with TurboRVB

**Coffee Break** 

16:00-17:40

Practical Sessions with TurboRVB



### **November 5, Wednesday**

Many-Body Perturbation Theory and the GW Approximation

09:00-10:40

Overview of the Yambo Code and its Main Features and Performance / Introduction to the GW Approximation

**Coffee Break** 

11:00-12:30

Introduction to Bethe Salpter equation / linear algebra use in MBPT

**Lunch Break** 

14:00-15:30

Practical Sessions with Yambo

**Coffee Break** 

16:00-17:40

**Practical Sessions with Yambo** 

**Venue Buffet** 

## **November 6, Thursday**

**Pushing the Boundaries of Large-Scale Simulations** 

**Chair: Luigi Genovese** 

09:00-09:45

Ayako Nakata (NIMS, Tsukuba)





09:45-10:10

Laura Ratcliff (School of Chemistry, University of Bristol)

10:15-10:40

Miguel Pruneda (CINN-CSIC, Oviedo)

**Coffee Break** 

Recent Advances in Linear Algebra Libraries for Materials Science

Chair: Edoardo Di Napoli

11:00-11:45

Toshiyuki Imamura (Riken-CCS, Kobe)

11:45-12:10

Clément Richerfort (Jülich Supercomputing Centre)

12:10-12:35

Laura Grigori (EPFL, Lausanne)

**Lunch Break** 

**Electronic Structure and Total Energy With Many-Body Methods** 

Chair: Daniele Varsano

14:00-14:45

Takao Kotani (Tottori University)

14:45-15:10

Maria Hellgren (IMPMC, Sorbonne Université, Paris)

15:10-15:35

Vitaly Gorelov (LSI, Ecole Polytechnique, Palaiseau)

**Coffee Break** 

**Electronic and Optical properties of innovative materials** 

Chair: Giacomo Giorgi

16:00-16:45

Maurizia Palummo (University of Rome Tor Vergata)







16:45-17:10

Claudio Attaccalite (CINAM Marseille)

17:10-17:35

Michele Amato (LPS, Université Paris-Saclay)

17:35-18:00

Claudio Quarti (University of Mons)

**Conference Dinner (just for speakers)** 



# **November 7, Friday**

**Modelling and Simulation of Energy Materials** 

Chair: Alessandro Pecchia

08:30-09:15

Azusa Muraoka (Japan Women's University)

09:15-09:40

George Volonakis (Université de Rennes)

09:40-10:05

Aran Garcia Lekue (DIPC, San Sebstian)

**Coffee Break** 

**Machine Learning for Materials Research** 

**Chair: Pablo Ordejon** 

10:30-11:15

Terumasa Tadano (NIMS, Tsukuba)

11:15-11:40

Makus Holzmann (LPMMC, Université Greonoble-Alpes)

11:40-12:05

Alessandra Serva (PHENIX, Sorbonne Université)





12:05-12:50

Tomomi Shimazaki (Yokohama City University)

**Lunch Break** 

**Greens Function Methods for Spectroscopy** 

**Chair: Michele Casula** 

14:00-14:45

Lucia Reining (LSI, Ecole Polytechnique, Palaiseau)

14:45-15:10

Fabien Bruneval (CEA Saclay)

15:10-15:35

Valerio Olevano (Institut Néel, Grenoble)

15:35-16:00

Andrea Ferretti (CRN Nano, Modena)

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