

The aim of the School is to introduce young African researchers to the theory of electronic structure and other atomistic simulation methods, with an emphasis on the computational methods for practical calculations.

Description:

The African School series on Electronic Structure Methods and Applications is planned on a biennial basis from 2010 to 2020. Previous schools were held in Cape Town, South Africa (2010), Eldoret, Kenya (2012), Johannesburg, South Africa (2015), Accra, Ghana (2016), and Addis Ababa, Ethiopia (2018). In 2021, ASESMA will be held as an ICTP Virtual school.

The School will also cover basic and advanced topics and applications of these methods to the structural, mechanical and optical properties of materials.

The School will include hands-on tutorial sessions based on public license codes (including, but not limited to, the Quantum Espresso package).

Topics:

- Electronic structure theory
- Density functional theory and functionals
- Phonons
- Magnetism
- Molecular dynamics
- Ab-initio molecular dynamics
- Optical spectroscopies
- Machine learning and data science

Directors:

- O. AKIN-OJO, EAIFR, Rwanda
- G. GEBREYESUS, University of Ghana, Ghana
- S. GRIFFIN, LBNL, U.S.A.
- R. MARTIN, Stanford University, U.S.A.
- S. NARASIMHAN, JNCASR Bangalore, India
- S. NDENGUE, EAIFR, Rwanda
- N. SERIANI, ICTP, Trieste, Italy

Lecturers:

- O. AKIN-OJO, EAIFR, Rwanda
- G. AMOLO, TU Kenya, Kenya
- M. GATTI, ETSF, LSI CNRS, Palaiseau, France
- G. GEBREYESUS, University of Ghana
- J. JUNQUERA, University of Cantabria, Spain
- R. MAEZONO, JAIST, Ishikawa, Japan
- N. MAMMEN, University of Jyvaskyla, Finland
- A. MARINI, ISM, Rome, Italy
- R. MARTIN, Stanford University, U.S.A.
- G. MELANI, University of Zurich, Switzerland
- S. NARASIMHAN, JNCASR Bangalore, India L. REINING, Ecole Polytechnique, France
- N. SERIANI, ICTP
- N. STOJIC, ICTP

ICTP Scientific Contact:

N. SERIANI, ICTP

How to apply:

Online application: http://indico.ictp.it/event/9553/

Female scientists are encouraged to apply.

Registration:

There is no registration fee.















Deadline:

15 May 2021



