

Summer School on the Calculation of Ionic Quantum and Anharmonic Effects with the Stochastic Self- Consistent Harmonic Approximation (SSCHA school 2023)



Eka. 26 - Eka. 30 2023

Kod. Z07-23

Mod.:
Aurrez aurrekoa

Edizioa
2023

Jarduera mota
Workshop

Data
Eka. 26 - Eka. 30 2023

Kokalekua
Materialen Fisika Zentroa (CSIC-UPV/EHU)

Hizkuntzak
Ingelesa

Balio akademikoa

50 ordu

Webgunea

<http://sscha.eu/Schools/2023/home/>

Antolakuntza Batzordea



Fundación
BBVA



Azalpena

The efficient and accurate calculation of how ionic quantum and thermal fluctuations impact the free energy of a crystal, its atomic structure, and phonon spectrum is one of the main challenges of solid state physics, especially when strong anharmonicity invalidates any perturbative approach. To tackle this problem, this school combines theoretical lectures as well as hands-on sessions on the stochastic self-consistent harmonic approximation (SSCHA) method, which is devised to tackle efficiently these problems, given by the developers of the code.

ORGANIZING COMMITTEE:

Ion Errea (UPV/EHU, Spain)

Diego Martínez (CFM, Spain)

Lorenzo Monacelli (EPFL, Switzerland)

Raffaello Bianco (UNIMORE, Italy)

Helburuak

The main goal of the school is to provide a deep theoretical and practical understanding of the SSCHA code, as well as to give the participants the option to share their own research.

Ikastaroaren laguntzaile espezifikoak



Zuzendaritza



Ion Errea

UPV/EHU

Ion Errea is an Associate Professor at the University of the Basque Country and leads the Quantum Theory of Materials group at the Centro de Física de Materiales. His research focusses on the development of theoretical methods for calculating complex properties of solids, such as quantum and anharmonic effects in atomic vibrations and the electron-phonon interaction, and the application of these methods in hydrogen-based superconductors, thermoelectric materials, phase transitions in solids, nanostructures, etc. He is an ERC grantee, research associate at the Donostia International Physics Center, and member of Jakiunde.

Irakasleak



Raffaello Bianco



Dorde Dangic

University of the Basque Country



Guglielmo Marchese

La Sapienza University, Italy



Giovanni Marini

ISTITUTO ITALIANO DI TECNOLOGIA



Diego Martínez Gutiérrez

CFM



Francesco Mauri

University of Rome



Lorenzo Monacelli

EPFL



Antonio Siciliano Siciliano

Sapienza, University of Rome

Matrikula prezioak

REGISTRATION FEES

2023-06-18 ARTE

Fee Waiver

0 EUR

Standard fee

150,00 EUR

Kokalekoa

Materialen Fisika Zentroa (CSIC-UPV/EHU)

Manuel Lardizabal pasealekua, 4. 20018 Donostia / San Sebastián

Gipuzkoa