

# ICTP Caribbean School on Materials for Clean Energy



**30 May - 5 June 2019**  
**Cartagena, Colombia**

Further information:  
<http://indico.ictp.it/event/8688/>  
[smr3297@ictp.it](mailto:smr3297@ictp.it)

The purpose of this School is to bring together researchers working on materials that are relevant for energy and environmental applications from a multiscale perspective, to show methodologies and discuss experimental and theoretical developments, current challenges, and perspectives.

## Directors:

R. GEBAUER, ICTP, Italy  
J. MONTOYA, Universidad de Cartagena, Colombia  
C. PINILLA, Universidad del Norte, Colombia  
N. SERIANI, ICTP, Italy

## Local Organizer:

B. COGOLLO-OLIVO  
Universidad de Cartagena, Colombia

## Description:

The School will provide an overview of experimental and theoretical approaches to the study of materials for clean energy. A more in-depth focus on some advanced topics will be presented, such as energy conversion, energy saving (including efficiency) and energy storage.

Understanding the fundamental processes that occur within materials at different scales can guide a very much needed materials-by-design approach. Computer simulations and experimental studies lead to improvements of efficiency and cost of several environment-friendly technologies. Such research therefore allows for the optimization of financial resources before more applied studies and/or production lines are implemented.

## Topics:

- Computational multiscale techniques for the study of new materials
- Latest experimental developments in clean energy
- Structural, mechanical, optical, and transport properties of Surfaces and Interfaces
- Energy generation and storage materials design
- Catalysts and energy-saving materials

## ICTP Scientific Contacts:

R. GEBAUER  
N. SERIANI

## Preliminary List of Lecturers:

P. Balbuena (TAMU)  
S. Baroni (SISSA)  
F. Giustino (Oxford)  
N. Marzari (EPFL)  
E. Menendez (U. Chile)  
C. R. Miranda (USP)  
A. Oganov (Skotekh, Russia)  
C. Wolverton (Northwestern U.)

## How to apply:

Online application:  
<http://indico.ictp.it/event/8688/>

Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to provide partial support for the attendance of selected participants, with priority given to participants from Latin America.

## Deadline:

for candidates requesting financial support

**3 March 2019**

otherwise:

**15 March 2019**



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