

# Joint ICTP-IAEA Advanced School/Workshop on Computational Nuclear Science and Engineering



**23 - 27 May 2022**  
**An ICTP - IAEA Hybrid Meeting**  
**Trieste, Italy**

Further information:

<http://indico.ictp.it/event/9798/>  
[smr3709@ictp.it](mailto:smr3709@ictp.it)

The event aims to provide students, young researchers, and young professionals with critical skills and tools in areas such as mathematical and computational techniques for modelling and simulation of complex systems, high performance computing, and computational methods for processing and analyzing large data sets, applied in nuclear science and engineering.

## Topics:

- Basic concepts/tools for computational nuclear science and engineering
- Fundamentals of nuclear observable challenges (computational methods for nuclear data; nuclear data for high fidelity, high performance reactor modelling and simulation)
- Advanced modelling and simulation methodologies (integrated multi-physics modelling for nuclear fusion plasma science; nuclear physics analysis in support of reactor design; reactor multi-physics modelling combined with digital measurement data)
- Open source data and codes for plasma/fusion/fission science and engineering
- Advanced computational methods (ML; algorithm development for data analysis in nuclear research; HPC; high performance humans in computing; data sciences for reactor systems)

## Call for Contributed Abstracts:

In the application form, all applicants are encouraged to submit an abstract. A limited number of abstracts will be selected for oral/poster presentation. If applicable (see Grants section below), presenters may be awarded a grant to support their in-person attendance.

## How to apply:

Online application:  
<http://indico.ictp.it/event/9798/>

Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries and to those submitting an abstract. There is no registration fee.

## Directors:

M. BARBARINO, IAEA, Austria  
C. BATRA, IAEA, Austria  
K. HEINOLA, IAEA, Austria  
J.-C. SUBLET, IAEA, Austria

## Local Organiser:

N. SERIANI, ICTP, Italy

## Lecturers:

L. CHACON, Los Alamos National Laboratory, USA  
J. CITRIN, DIFFER, Netherlands  
C. FIORINA, Swiss Federal Institute of Technology, Lausanne, Switzerland  
B. FORGET, Massachusetts Institute of Technology, USA  
A. GOMEZ TORRES, ININ, Mexico  
R. JAUREZ MANAS, Universidad Nacional de Educación a Distancia, Spain  
M. KUCHERA, Davidson College, USA  
N. MURPHY, Center for Astrophysics | Harvard & Smithsonian, USA  
M.G. PIA, INFN, Italy  
J. RAGUSA, Texas A&M University, USA  
C. REA, Massachusetts Institute of Technology, USA  
G. SCHNABEL, Department of Nuclear Sciences and Applications, IAEA, Austria  
P. SHRIWISE, Argonne National Laboratory, USA  
N. TOURAN, TerraPower, USA

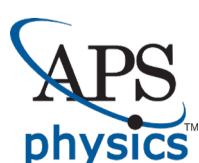
## Deadlines:

**27 March 2022**

All applications

**30 April 2022**

Online applications only



The Abdus Salam  
**International Centre  
for Theoretical Physics**  
[www.ictp.it](http://www.ictp.it)  
Trieste, Italy

