

Joint ICTP-IAEA Workshop on Simulation of Nuclear Reaction Data with the TALYS Code



16 - 20 October 2023
An ICTP Meeting
Trieste, Italy

Further information:
<http://indico.ictp.it/event/10221/>
smr3887@ictp.it

The purpose of the workshop is to provide training and information exchange for nuclear physicists, nuclear engineers, and other users of nuclear data for nuclear applications. The Workshop will revolve around TALYS, an open source code for the simulation of nuclear reactions.

Director:

A. KONING, IAEA, Austria

Description:

TALYS is a nuclear reaction program for the complete and accurate simulation of nuclear reactions up to energies of 200 MeV, through an optimal combination of reliable nuclear models, flexibility and user-friendliness. TALYS can be used for the analysis of basic nuclear reaction experiments or to generate nuclear data for applications. Currently, there are more than 6000 publications in which TALYS is used, for applications such as astrophysics, medical isotope production, fission and fusion energy applications, and many others. The success of TALYS to simulate cross section and other observables depends on a solid implementation of nuclear reaction and structure models, including the optical model, discrete levels, level densities, fission, photon strength functions.

Topics:

- General principles of nuclear reaction and nuclear structure physics
- Measurements of nuclear reaction data, the variety of experimental data and adjusting TALYS nuclear model parameters to obtain good fits to experiment
- Modern theoretical nuclear structure and reaction models, application of TALYS results in nuclear technology and basic nuclear science
- The capability to run TALYS sample cases from low to high energies with hands-on exercises
- Analyses of cross sections, spectra, angular distributions, and fission yields
- Uncertainty quantification

Local Organiser:

N. BINGGELI, ICTP, Italy

Lecturers:

S. GORIELY, Université Libre de Bruxelles, Belgium
S. HILAIRE, CEA, DAM, DIF, France
A. KONING, IAEA, Austria
S. POMP, University Uppsala, Sweden
D. ROCHMAN, PSI Villigen, Switzerland

How to apply:

Online application:
<http://indico.ictp.it/event/10221/>

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. There is no registration fee.

Deadline:

30 June 2023

