

# Joint ICTP-IAEA Workshop on the Evaluation of Nuclear Reaction Data for Applications



**2 - 13 October 2017**  
**Trieste, Italy**

Further information:  
Activity URL: <http://indico.ictp.it/event/7994/>  
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Training for nuclear physicists and users of nuclear data will be provided. The course includes techniques for basic experimental nuclear data, nuclear structure and reaction models, evaluation procedures and creation and processing of nuclear reaction data libraries for applications.

## Directors:

A. KONING, IAEA/NAPC  
J.C. SUBLET, IAEA/NAPC

## Local Organizer:

C. TUNIZ, ICTP

## Description:

Participants will learn the basic principles and techniques used in measurements of nuclear reaction data, particularly for neutron-induced reaction cross sections in general and resonance reactions. Modern nuclear theories for structure and reaction modeling will be covered, together with an introduction to the use of relevant nuclear reaction codes for model calculations (TALYS nuclear reaction software).

The process of evaluation of experimental nuclear data and results of theoretical calculations will be presented, along with information, and formats, on the available major nuclear reaction data libraries. An important supplementary aim will be to enable the students to process nuclear data libraries into a form ready to be used for technological applications.

## Topics:

### 1st week

Nuclear Reaction Data Measurements and Calculation:

- Facilities and experimental techniques for neutron cross-section measurements;
- Resonance data evaluation;
- Nuclear structure and reaction models for cross-section calculations;
- Computer exercises with TALYS nuclear model code.

### 2nd week

Evaluation Methods and Nuclear Data for Advanced Nuclear Technologies:

- Nuclear data evaluation, ENDF formatting and libraries;
- Nuclear data testing and processing with NJOY;
- Implications of nuclear data libraries in applied simulations;
- Computer exercises using nuclear data processing and application packages.

## Workshop Speakers:

P. SCHILLEBEECKX, IRMM, EC, Geel, Belgium  
S. POMP, Univ. Uppsala, Sweden  
S. HILAIRE, CEA-DAM, Bruyeres-le-Chatel  
S. GORIELY, Univ. Brussels, Belgium  
D. ROCHMAN, PSI, Villigen, Switzerland  
M. FLEMING, CCFE, Culham, UK  
A. KAHLER, LANL, Los Alamos, USA  
O. CABELLOS, NEA Data Bank, Paris, France

## How to apply:

Online application:  
<http://indico.ictp.it/event/7994/>

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:

**15 July 2017**



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