

Description

The International Atomic Energy Agency organised a two-week Workshop on “Nuclear Structure and Decay Data: Theory and Evaluation” at the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste from 17 to 28 November 2003. This workshop was conceived and directed by A.L. Nichols (IAEA Nuclear Data Section), J. Tuli (NNDC, Brookhaven National Laboratory, USA) and A. Ventura (ENEA, Bologna, Italy).

The primary objective of the ICTP-hosted workshop was to familiarize nuclear physicists and engineers from both developed and developing countries with

- (i) modern nuclear models;
- (ii) relevant experimental techniques;
- (iii) statistical analyses procedures to derive recommended data sets;
- (iv) evaluation methodologies for nuclear structure and decay data;
- (v) international efforts to produce the Evaluated Nuclear Structure Data File (ENSDF).

Reliable nuclear structure and decay data are important in a wide range of nuclear applications and basic research. Participants were introduced to both the theory and measurement of nuclear structure data, and the use of computer codes to evaluate decay data.

Detailed presentations were given by invited lecturers, along with computer exercises and workshop tasks. Participants were also invited to contribute their own thoughts and papers of direct relevance to the workshop.

Presentations and other material was prepared from this workshop as a two part manual (INDC(NDS)-452),

A further two workshops were organised under the auspices of the IAEA Nuclear Data Section and the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste. These constituted a further development of previous Nuclear Structure and Decay Data Workshops held in 2002 and 2003 and were held on:

A two-week Workshop on 4 April to 15 April 2005.

A two-week Workshop on 20 February to 20 March 2006.

Some new material was prepared for 4 to 15 April 2005, as a first addendum (INDC(NDS)-473), furthermore, new and modified lectures from the 20 February to 3 March 2006 workshop have been brought together in a second addendum report. (INDC(NDS)-496).

These manuals and addendums are included on these web pages as are all relevant lecturer and participant presentations along with appropriate computer codes. Also included are various reports and manuals relevant to these workshops and to the workshop topics.