

First Announcement

International Conference on Nuclear Data for Science and Technology
"ND2004"

September 26- October 1, 2004

Eldorado Hotel

Santa Fe, New Mexico, USA

<http://t16web.lanl.gov/nd2004/>

The International Conference on Nuclear Data for Science and Technology will be held September 26-October 1, 2004 in Santa Fe, New Mexico, USA. This is an OECD-Nuclear Energy Agency Conference, which is held approximately every 3 years. Recent conferences in this series were in Antwerp (1982), Santa Fe (1985), Mito (1988), Juelich (1991), Gatlinburg (1994), Trieste (1997) and Tsukuba (2001). This International Conference focuses on nuclear data, their production, dissemination, testing and application. The data are produced both through experiment and theoretical models; they are compiled and evaluated to form data libraries of use in applications; and they are tested through benchmark experiments and a very wide range of applications. This Conference includes all of these activities with the goal of improving nuclear data for applications including fission and fusion energy, accelerator driven systems, accelerator technology, spallation neutron sources, nuclear medicine, environment, space, non-proliferation, nuclear safety, astrophysics and cosmology, and basic research.

Venue: The conference will be held at the Eldorado Hotel in Santa Fe, New Mexico, USA. Santa Fe is a tourist destination as well as a location for many meetings. It is situated at 2,300 meters elevation in the foothills of the Rocky Mountains, and is known for its scenery, multicultural attractions, archaeological sites, art, music, sunshine and outdoor activities. Although no tours are planned at the national laboratories, Santa Fe is near the Los Alamos National Laboratory (35 miles = 56 km), Sandia National Laboratory (70 miles = 113 km), and the VLA Radiotelescope (150 miles = 241 km).

Conference topics include:

1. Nuclear Data Evaluations, Data Testing, and Dissemination

- Nuclear Reaction Data and Evaluated Data Libraries: Advances in major libraries, neutron and charged-particle reaction data, photonuclear data, covariance data, fission yields, evaluation methods, data at thermal energy.
- Nuclear Structure and Decay Data: Advances in compiled and evaluated nuclear structure and decay libraries, nuclear masses, nuclear levels and level densities, strength functions.
- Nuclear Data Evaluations: Problems and progress in critical evaluations.
- Processing, Testing, and Validation of Evaluated Nuclear Data: Advances in processing methods and codes, application codes, benchmark tests, other integral tests, sensitivity analysis, quality assurance.

- Data Dissemination and International Collaborations: Data centers, dissemination statistics, data charts, collaborations in measurement and evaluation.

2. Measurements and Experimental Facilities

- Fundamental Physics with Neutrons: Properties of the neutron, symmetries, tests of the standard model, chaos, parity violation
- Experimental Facilities and Methods: Advances in facilities producing nuclear data, measurement techniques, equipment.
- Standards and Dosimetry: Standard cross sections, measurements and evaluations, dosimetry cross sections.
- Measurements of cross sections to elucidate reaction mechanisms, including physics off beta stability, radioactive beams, isomers, nuclear reactions and structure, and spectroscopy.

3. Theory and Computational Models

- Nuclear Theory: Advances in nuclear theory relevant to data evaluation, reaction theory, nuclear structure theory, developments in nuclear modeling codes.
- Nuclear structure and reactions off stability.
- Advances in Computational Methods: Impact of high-speed computers, algorithms, Monte Carlo and deterministic methods.

4. Nuclear Data in Astrophysics & Cosmology: Advances in stellar models, nucleosynthesis, cosmology, neutrinos, cosmic rays, measurements, evaluations.

5. Applications

- Fission Energy: Advances in fission energy programs, measurements, evaluations, new designs, data needs.
- Fuel cycle and waste disposal.
- Fusion Energy: Advances in fusion energy development, measurements, evaluations, new designs, data needs.
- Accelerator Technology and Accelerator Driven Energy Systems: energy amplifiers, waste incineration, advanced reactor concepts
- Medicine, Environment, Space, and Other Technologies: Advances in applications, data needs.
- Non-proliferation and Related Topics: Advances in detection and other technologies, data needs, measurements, applications.
- Nuclear safety: Advances in criticality safety, fission energy, environmental safety, data needs.

Key dates:

Second announcement:

October 1, 2003

Deadline for submission of abstracts:

December 15, 2003

Abstract Reviews to Authors

March 15, 2004

Third announcement:

May 1, 2004

Deadline for submission of manuscripts:

September 26, 2004

Conference date:

September 26 -October 1, 2004

Conference address:

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Questionnaire: For those not on the mailing list for this first announcement or if your e-mail address has changed, please submit the following information for future announcements to "nd2004@lanl.gov."

Name (with title): _____
Affiliation: _____
Address: _____
Telephone number: _____
FAX number: _____
e-mail addresss: _____

We look forward to seeing you here in Santa Fe for ND2004!

Robert C. Haight
Mark B. Chadwick
Co-chairs of ND2004