
Radiation Safety Information Computational Center



Oak Ridge National Laboratory
POST OFFICE BOX 2008
OAK RIDGE, TENNESSEE 37831-6171

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phone 865-574-6176 fax 865-241-4046
email PDC@ORNL.GOV
www <http://rsicc.ornl.gov/>

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*So long as new ideas are created, sales will continue to reach new heights.—
Charles F. Kettering*

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Weinberg

It is with sorrow that RSICC reports the death of Dr. Alvin M. Weinberg on October 19, 2006. Dr. Weinberg died at his home in Oak Ridge late in the day of natural causes. He was 91. The son of Russian immigrants, he was born in Chicago in 1915. Weinberg received his Ph.D in mathematical biophysics at the University of Chicago in 1939. One of his professors suggested he join the A-bomb project (Manhattan Project) and he did so the day after Pearl Harbor. Weinberg came to Oak Ridge in 1945 and joined the staff of the, then, Clinton Laboratories. He became research director of Oak Ridge National Laboratory in 1948 and director in 1955, a position he held for 18 years. It is largely due to his efforts that the Laboratory made a successful transition from the “muddy mess” of a wartime laboratory to “a science research facility of international stature.”¹ He was often referred to around here as Mr. ORNL. After leaving the Laboratory in 1973, he founded the Institute of Energy Analysis, a think tank that explored all types of energy issues. In 1974 he became director of the U.S. Office of Energy Research and Development in Washington. In that capacity he helped shape science programs around the country, for Weinberg recognized and promoted national laboratories as resources well suited to the exploration of diverse scientific problems.¹

¹ Much of the information provided here was selected from three sources:
http://www.knoxnews.com/kns/local_news/article/0,1406,KNS_347_5077268,00.html, ORNL Review Vol. 25, Nos. 3 and 4, 1992, and ORNL Review Vol. 28, No. 14, 1995.



Dr. Alvin Weinberg with Gelbard Review Lecture Series lecturers and organizers (M&C 2003, Gatlinburg, Tennessee, April 6–10, 2003). Front row from left: Yousry Azmy, R. Hwang, Jack Dorning, Dr. Weinberg, Jerry Spanier; back row from left, Ed Larsen, Enrico Sartori, Elliott Whitesides, Elmer Lewis, and Kord Smith.

RSICC came into existence in 1962 largely as a result of the report² made by Weinberg and others to the Executive Office of the President of the United States on the “information explosion” and the role of the technical community and government in its preservation and use. This report became known as the Weinberg Report. Its theme was “Information is an integral part of science; without proper handling of information, science cannot function.”³ The report recommended the establishment of specialized information centers - “to digest and evaluate - to make condensations and reviews -thus saving the time of the individual research scientist and engineer.” On April 8, 2003, Dr. Weinberg helped RSICC celebrate 40 years as a vital resource for the radiation protection, shielding, and transport community at the M&C 2003 Meeting held in Gatlinburg, Tennessee. His topic for the evening was “The Immortal Reactor,” an exploration of the concept of building longevity into the design and construction of the next generation of nuclear power plants.

Weinberg received the Atoms for Peace Award, the Harvey Prize, the Heinrich Award, the Atomic Energy Commission's E. O. Lawrence Memorial Award and its highest award, The Enrico Fermi Prize. He was a member of the National Academy of Sciences, the National Academy of Engineering, the American Academy of Arts and Sciences, the American Philosophical Society, a Foreign Member of the Royal Netherlands Academy of Sciences, and was elected president of the American Nuclear Society in 1959. In 1995 the ANS established the [Alvin M. Weinberg Medal](#) in his honor to recognize contributions made to the understanding of the social implications of nuclear technology. Former RSICC Director, Betty F. Maskewitz, received the award in 2003 in recognition of “a career devoted to sharing radiation shielding technology and information throughout the world.”

Weinberg penned an autobiography published by AIP Press, New York, in 1994, titled *The First Nuclear Era: The Life and Times of a Technological Fixer*.

For your further reading about the life and career of Dr. Weinberg please see:

² U.S. President’s Science Advisory Committee, *Science, Government, and Information: The Responsibilities of the Technical Community and the Government in the Transfer of Information*, (commonly known as the Weinberg Report), U.S. Government Printing Office, Jan. 10, 1963, 55p.

³ A. M. Weinberg, private communication in recognition of RSIC’s 20th Anniversary, May 2, 1983.

[“The First 50 Years”](#), ORNL Review Vol. 25, Nos. 3 and 4, 1992.

[“Tribute to Alvin M. Weinberg: Review of the Weinberg Years at ORNL”](#), ORNL Review Vol 28, No. 1, 1995.

Alvin Martin Weinberg, *A Case of Biological Periodicity* (Menasha, WI, 1938).

Alvin Martin Weinberg and Eugene Paul Wigner, *The Physical Theory of Neutron Chain Reactors*, University of Chicago Press, Chicago, 1958.

Alvin Martin Weinberg, *Reflections on Big Science*, M.I.T. Press, Cambridge, 1967.

Alvin Martin Weinberg and Russell M. Ball, *Continuing the Nuclear Dialogue Selected Essays*, American Nuclear Society, La Grange Park, IL., 1985.

Alvin Martin Weinberg and Russ Manning, *The Second Nuclear Era: A New Start for Nuclear Power*, Praeger, New York, 1985.

Alvin Martin Weinberg *et al.*, *The Nuclear Connection: A Reassessment of Nuclear Power and Nuclear Proliferation*, Paragon House Publishers, New York, 1985.

Alvin Martin Weinberg and Jack N. Barkenbus, *Strategic Defenses and Arms Control*, Paragon House Publishers, New York, 1988.

Jack N. Barkenbus and Alvin Martin Weinberg, *Stability and Strategic Defenses*, Washington Institute Press, Washington, DC, 1989.

Alvin Martin Weinberg, *Nuclear Reactions Science and Trans-Science*, American Institute of Physics, New York, 1992.

Women in Nuclear

The inaugural *Patricia Bryant Leadership Award* was presented to **Margie Barnes** at the Annual Conference of the U.S. WIN in July. Margie lives out the objectives of WIN while working at Duke Energy. The award is named in honor of Patricia Bryant, a founder of Women in Nuclear Global and U.S. WIN, in recognition of her work in both domestic and international energy communications. U.S. WIN members are encouraged to nominate candidates who have made contributions in any or all of the three U.S. WIN core values for consideration for this award. If you have questions regarding eligibility or the application process, please contact Carol L. Berrigan, Nuclear Energy Institute, 1776 I Street, NW, Suite 400, Washington, DC 20006 (phone 202-739-8050, email clb@nei.org). Guidelines and the nomination form can be found at <http://www.winus.org/whatsnew/index.asp>.

ANS News

Seeking Nominations

The ANS Honors and Awards Committee is seeking nominations for several awards.

The [Henry DeWolf Smyth Nuclear Statesman Award](#) was established in 1972 by the ANS and the Nuclear Energy Institute (NEI) to recognize outstanding and statesmanlike contributions to the many aspects of nuclear energy activities. The candidate must have international stature in a broad sector of the nuclear energy field. A significant segment of the candidate's work must have been directed toward the peaceful uses of nuclear energy. Nominees need not be ANS or NEI members, they do not have to be US citizens, but the recipient must be living at the time he/she is nominated. The [nomination form](#) and supporting documents must be received at ANS Headquarters before February 28.

The [Leadership Award](#), established in 1989, recognizes ANS members who have made substantial contributions to the Society over a prolonged period of time. The recipient must be an ANS member with outstanding and sustained service in areas of leadership, governance, or direction of ANS. This award is primarily intended to recognize the services of members of the governance committees of ANS. [Nominations](#) must be received at ANS headquarters by February 1.

The [Arthur Holly Compton Award in Education](#) was established in 1966 to recognize and encourage outstanding contributions to education in nuclear science and engineering. The award recipient must have made an outstanding contribution to education in the field of nuclear science and/or engineering, but does not have to be an ANS member or work primarily in the education field. The [nomination form](#) and supporting materials should be sent to ANS headquarters by March 1.

The [Mary Jane Oestmann Professional Women's Achievement Award](#) recognizes outstanding personal dedication and technical achievement by a woman for work she has performed in the fields of nuclear science, engineering, research, or education. The woman need not be an ANS member, but should be affiliated with the nuclear community in some manner. The [nomination form](#) and supporting documents must be received by July 1.

These are just a few of the 35 awards available through the ANS honors and awards programs. Information about all the awards, nomination forms, and past recipients can be found on the ANS Honors and Awards page, <http://www.ans.org/honors/>.

2006 Awards

Four new ANS Fellows were recognized during the 2006 Annual Meeting in Reno at the Honors and Awards Luncheon.

Soon Heung Chang, an ANS member since 1983 and a professor at the Korea Advanced Institute of Science and Technology, was honored for “outstanding scholarly contributions to the fundamental understanding of thermal hydraulics phenomena, with emphasis on critical heat flux, severe accident analyses, and nuclear safety.”

George E. Dials, a member since 1995, president and general manager for BWXT-Y12, was honored for “creative, visionary leadership and for successfully developing and implementing the policies and strategies leading to (1) the opening of the Waste Isolation Pilot Plant in New Mexico, the world’s first deep geological repository for long-lived, transuranic radioactive waste; (2) the site suitability report forming the decision basis for the Yucca Mountain site in Nevada, . . . and (3) the pending opening of the nation’s first ‘compact’ low-level waste disposal facility in Texas.”

Chang Hyo Kim, a member of ANS since 1984 and a professor of nuclear engineering at Seoul National University, was honored for “significant original contributions to the advancement of nuclear reactor physics. His research in advanced nodal methods for core neutronics analysis provided a firm, unified mathematical basis for the many nodal methods developed in the 1980s. His work in advanced Monte Carlo methods provided, for the first time, a robust stochastic transport method incorporating temperature feedback effects into the solution for reactor applications.”

Imre Pazsit, a professor at Chalmers University of Technology in Sweden, has been a member of ANS since 1994. He was honored for “development of the theory of neutron fluctuations in zero power systems and power reactors, the elaboration of novel uses of noise theory for the diagnostics of traditional and emerging nuclear systems, and his extraordinary leadership as an educator and department head at one of the leading nuclear engineering departments in the world.”

Other awards presented at the 2006 Annual Meeting, include:

Robert D. Busch received a *Presidential Citation* for “his demonstrated and continuous contributions to the professional development programs sponsored the Society, his active membership on the Professional Engineering Exam committee, his leadership of the effort to revise the ‘Professional Engineering Exam Study Guide for Nuclear Engineers,’ and his organization and presentation of workshops on preparing for the nuclear professional engineering exam at numerous national meetings.” Busch is the director of the nuclear engineering laboratory at the University of New Mexico and has been an ANS member since 1987.

Nils J. Diaz, former chairman of the U.S. Nuclear Regulatory Commission, received a *Presidential Citation* in recognition of “outstanding leadership of the NRC in its development of policies and regulations and its oversight of licensed activities. His focus on safety, security, and emergency preparedness, with appropriate consideration of risk significance in regulatory decisions and communications, will provide a lasting contribution to the advancement of nuclear science and technology for the public good.”

John W. Landis received the *Distinguished Service Award* in recognition of “unsurpassed contributions to the American Nuclear Society and the development of its programs, his exceptional efforts on behalf of nuclear power and nuclear technology, his long and distinguished professional career, his service on many government boards and commissions, and his tireless efforts as a truly dedicated advocate of the worldwide peaceful nuclear energy endeavor.” A charter member of ANS, Landis is an ANS Fellow and served as the president of the Society for the 1971–1972 term.

Chauncey Starr, ANS Fellow and Society president for the 1958–1959 term, received the *George C. Laurence Pioneering Award* for “outstanding contributions toward improving the safety of nuclear power plants and his leadership in initiating, promoting, and executing programs in the development and application of probabilistic safety assessment.”

Jeremy T. Busby, member since 2003, received the *Landis Young Member Engineering Achievement Award* for “developing post-irradiation annealing as a recognized method for understanding irradiation-assisted stress corrosion cracking and other irradiation-induced degradation processes.” Busby is an assistant research scientist at Oak Ridge National Laboratory.

CONFERENCES, COURSES, SYMPOSIA

RSICC attempts to keep its users and contributors advised of conferences, courses, and symposia in the field of radiation protection, transport, and shielding through this section of the newsletter. Should you be involved in the planning/organization of such events, feel free to send your announcements and calls for papers via email to riceaf@ornl.gov with “conferences” in the subject line by the 20th of each month. Please include the announcement in its native format as an attachment to the message. If the meeting is on a website, please include the url.

Every attempt is made to ensure that the links provided in the Conference and Calendar sections of this newsletter are correct and live. However, the very nature of the web creates the possibility that the links may become unavailable. In that case, please call or mail the contact provided.

[MCNPX Workshops](#)

Lead Teachers: Drs. John Hendricks, Gregg McKinney, Laurie Waters

Organizer: HQC Professional Services

Contact: bill@mcnpxworkshops.com

Information: <http://mcnpxworkshops.com> and MCNPX homepage: <http://mcnpx.lanl.gov>

2006 Schedule		
Nov. 27–Dec. 3	Santa Fe, NM	Intermediate/Advanced
2007 Schedule		
Jan. 8–12	Las Vegas, NV	Advanced
Jan 29–Feb 2	Paris, France	Introductory
Mar 12–16	San Francisco, CA	Intermediate
Apr 30–4 May	Honolulu, HI	Introductory
June 4–8	Santa Fe, NM	Introductory
Sept 17–21	Santa Fe, NM	Advanced
October 22–26	Europe	Intermediate

MCNPX is packed with new and exciting plotting features, including numerous mesh tally options which can be superimposed on your geometry plot and plotted within the MCNPX run, eliminating the need for post-processing and costly additional plotting package(s). You can plot particle flux, tracks, dosage, and energy deposition as well as source points and many others.

The workshops include hands-on instruction, generally on PC Windows machines. Subject to participant export approval from the MCNPX beta test team, participants will be able to access the Fortran 90 version of MCNPX 2.6, the LA150 (150 MeV) cross-section data libraries for over 40 isotopes for incident neutrons and protons and 12 for photonuclear interactions, and a notebook of viewgraphs.

Follow-up consultation for class participants will be provided.

The classes are taught by experienced MCNPX code developers and instructors. More information on code versions and capabilities is available at MCNPX Workshops web site <http://mcnpworkshops.com>.

To register go to <http://mcnpworkshops.com/regform.html>.

[Fall 2006 SCALE Training Courses at ORNL](#)

Date	Title	Registration Fee	Description
October 30– November 2	TSUNAMI Sensitivity/ Uncertainty Tools Course (Experienced KENO users only)	\$1800	1-D and 3-D sensitivity/uncertainty analysis using XSDRNPM and KENO V.a
November 6–10	KENO V.a Course	\$1800	CSAS/KENO V.a (including KENO3D and GeeWiz)

A late fee of \$300 will be applied after September 22, 2006. A discount of \$300 per each additional week will be applied for registration to multiple courses. **Class size is limited and course may be canceled if minimum enrollment is not obtained one month prior to the course.** Course fees are refundable up to one month before each class. **Note that all attendees must be registered SCALE 5 or 5.1 users.** All foreign national visitors must register 40 days prior to the start date of the training course they plan to attend. Course descriptions may be found at http://www.ornl.gov/sci/scale/course_description.htm.

Introduction to MCNP Using the Visual Editor Training

This class will be held November 6–10, 2006, in Richland, Washington. It will be taught using the most recent (beta) version of the Visual Editor Code. Beta versions will only be available to students that own the RSICC version 5 release. Bring proof of ownership to the class.

The class combines teaching on MCNP physics, along with instructions on how to use the Visual Editor. Computer demonstrations and exercises will focus on creating and interrogating input files with the Visual Editor. Demonstrations of advanced visualization work using MCNP will also be made. The class will be taught on Pentium computers running Windows 2000. Attendees are encouraged to bring their own input files for viewing and modifying in the visual editor. The last date to register without a late fee is August 28, 2006. The course description and registration information can be found at <http://www.mcnpvised.com/visedtraining/trainvised.html>.

Conference on Nuclear Training and Education (CONTE III)

CONTE III is an ANS Topical Conference which will be held in Jacksonville, Florida, February 4–7, 2007. The program supports the conference mission to be an “international forum on nuclear energy training and education and workforce issues facing a renewed nuclear energy option.” The program track includes:

- Human Performance Improvement
- Workforce Planning/Recruiting/Diversity
- Personnel Training/Qualification/Education
- Knowledge Retention
- New Educational Partnerships – University/Industry/Government
- Engineering Education – Distance Learning
- Leadership Development/Succession Planning
- International Perspectives

Relevant conference information is posted at <http://www.ans.org/meetings/calendar.cgi?d=2-4-2007>

3D S.UN.COP 2007

The University of Pisa, Texas A&M University, the University of Zagreb, and the School of Industrial Engineering of Barcelona are jointly organizing the sixth edition of Scaling, Uncertainty and 3D Coupled Code Calculations (3D S.UN.COP 2007). The Seminar and Training will take place January 22–February 9, 2007, at the Department of Nuclear Engineering of Texas A&M University, College Station, Texas, USA. The deadline for registration is November 8, 2006.

The seminar is divided into three parts and participants may choose to attend a one-, two- or three-week course depending on their interest in the following topics:

- 1) Fundamental theoretical aspects of the methodologies and their practical application;
- 2) Practical applications and hands-on training;
- 3) Hands-on training for advanced users, followed by an examination.

Further information may be requested from Alessandro Petruzzi at the following email address: a.petruzzi@ing.unipi.it or from the webpage at <http://dimnp.ing.unipi.it/3dsuncop>.

33rd Waste Management Conference



The 33rd Waste Management Conference (WM'07) will be held February 25–March 1, 2007, in Tucson, Arizona. The conference is organized by WM Symposia, Inc., an Arizona non-profit corporation and hosted by the University of Arizona.

Sponsoring organizations include the American Nuclear Society, the American Society of Mechanical Engineers, New Mexico State University Waste-Management Education and Research Consortium (WERC) and OECD/NEA. The conference is also organized in cooperation with the US Department of Energy (DOE), Nuclear Regulatory Commission (NRC), Environmental Protection Agency (EPA) and International Atomic Energy Agency (IAEA). Information relevant to the conference is available on the website (<http://www.wmsym.org/>).

PHYTRA1

The First International Conference on Physics and Technology of Reactors and Applications (PHYTRA1) will be held March 14–16, 2007, in Marrakech City, Morocco. This is the first International Conference organized by the Moroccan Association for Nuclear Engineering and Reactor Technology “GMTR” after a series of three national conferences. The objective is to provide scientists and engineers from different countries an opportunity to present their recent work in reactor physics and nuclear technology. Industrial vendors may exhibit their products and innovations in different domains related to reactor physics and nuclear technology. The PHYTRA1 conference will also be a celebration for the operation of the first research reactor (TRIGA Mark II) in Morocco which is expected to be commissioned in 2006.

Conference topics include:

- Deterministic and Monte Carlo Transport Theory Methods
- Reactor Core and Lattice Physics Methods
- Physics and Computational Methods for Advanced Reactors
- Reactor Theory and Reactor Concepts
- Neutron Kinetics and Dynamics
- Criticality and Safety Analysis
- Fuel Loading Optimization and Fuel Design
- Nuclear Data Analysis and Methods
- Computer Codes and Benchmarks
- Computational Methods for Research Reactors
- High Temperature Reactor Physics and Methods
- Reactor Thermal Hydraulics
- Radioactive Waste Management
- Research Reactor Utilization
- Reactor Dosimetry and Reactor Shielding

Information on the conference can be found at the website, <http://www.fst.ac.ma/gmtr/phytra1/phytra1.html>, or by contacting Pr. A. Jehouani, Faculty of Sciences SEMLALIA, Dept. of Physics, University Cadi Ayyad- Marrakech, Morocco (email PHYTRA1@fsr.ac.ma or jehouani@ucam.ac.ma, fax 212-44-43-74-10) or Pr. L. Erradi, GMTR President, Mohammed V Agdal University, Faculty of Sciences, Department of Physics, B. P. 1014 Rabat, Morocco (email erradi@fsr.ac.ma or fax 212-0-37-77-89-73).

National Physical Laboratory (UK) Hosts Two MC Events

The National Physical Laboratory (NPL) will host two Monte Carlo events in March 2007. The International Workshop on Monte Carlo Codes, a two-day workshop devoted to some of the most popular Monte Carlo radiation transport codes, will be held at NPL on March 26–27, 2007. It will include sessions on the following codes: EGSnrc, Geant4, MCNPX, and PENELOPE. Presentations will cover

the important features, capabilities and recent developments of each code, as well as one or more demonstrations of real applications. There will also be several introductory lectures on general Monte Carlo techniques for novice users that are applicable to all radiation transport codes. At the end of the first day, there will be a session during which delegates may demonstrate their own applications and problems.

The workshop will be followed by the 13th UK Monte Carlo User Group Meeting (MCNEG 2007) March 28–29. The MCNEG 2007 meeting will provide delegates with the opportunity to present and discuss their applications and recent developments of Monte Carlo in radiotherapy, radiation protection, radioactivity, the nuclear and other industries. The meeting format will encourage extensive discussion and feedback on recent topics in these areas of Monte Carlo. The meeting will include several talks from the invited speakers on recent Monte Carlo topics, presentations by delegates on submitted topics, and tours of the new state-of-the-art radiation facilities at NPL.

Questions regarding the Monte Carlo workshop and MCNEG 2007 may be directed to one of the local organisers: David Shipley (phone +44 (0) 20 8943 6252, fax +44 (0) 20 8943 6070, email david.shipley@npl.co.uk), Mark Bailey (phone +44 (0) 20 8943 6797, fax +44 (0) 20 8943 6070, email mark.bailey@npl.co.uk) or Alan DuSautoy (phone +44 (0) 20 8943 6563, fax +44 (0) 20 8943 6070, email alan.dusautoy@npl.co.uk). Relevant information for both events can be found at <http://www.npl.co.uk/ionrad/training/montecarlo/>. Mail can be sent to National Physical Laboratory, Hampton Road, Teddington, Middlesex, United Kingdom TW11 0LW.

[M&C + SNA 2007](#)

The Joint International Topical Meeting on Mathematics & Computations and Supercomputing in Nuclear Applications (M&C+SNA) will be held April 15–19, 2007, in Monterey, California. The conference will provide an international forum to review recent research results, and the status and trends in high performance computing, numerical simulation and physical modeling of current and advanced nuclear systems. Topics include:

- Computational Methods Using High Performance Computers
- Computational Reactor Physics and Particle Transport
- Nuclear Reactor Analysis
- Computational Biomedical Applications
- Computational Nuclear Fuel Cycle/Repository Performance
- Computational Plasma Physics/Fusion
- Computational Thermal Hydraulics
- Computational Materials Sciences
- Computational Science
- Planned Special Sessions
 - Domain Representation for Advanced Nuclear Applications
 - Nuclear Methods for Nonproliferation and Homeland Security
 - Analytical Benchmarks
 - Tomographic Phantoms
 - Stochastic Considerations in Particle Transport

Program, registration, and other significant information about the conference may be found at the website, <http://mc-sna07.nuc.berkeley.edu/>. General questions about the conference may be addressed to mcinfo@nuc.berkeley.edu and questions regarding the program should be submitted to vujic@nuc.berkeley.edu.

ND2007

The International Conference on Nuclear Data for Science and Technology will be held April 22–27, 2007, in Nice, France. The conference is organized by the Commissariat à l'Énergie Atomique (CEA) under the auspices of the OECD Nuclear Energy Agency (NEA). The General Chairs are B. Bigot, Haut-commissaire à l'Énergie Atomique and L. Echávarri, NEA Director-General. The technical program includes the following topics:

- Nuclear structure and decay data
- Experimental facilities and detection techniques
- Nuclear data measurements and analysis
- Nuclear theories, models and data evaluation
- Standards
- Evaluated nuclear data libraries and processing
- Validation, benchmarking of evaluated data
- Integral experiments
- Uncertainties quantification
- Data dissemination and international collaboration
- Fission energy applications
- Accelerator-related applications
- Fusion technology applications
- Dosimetry and shielding applications
- Safeguards and security
- Space, cosmic-ray applications, radiation effects on electronics
- Astrophysics and cosmology applications
- Medical and environmental applications

The most current information will be posted on the website at http://www-dapnia.cea.fr/Sphn/nd2007/site_nd2007/ and questions or comments may be addressed to nd2007@cea.fr.

International Conference on Emerging Nuclear Energy Systems (ICENES 2007)

The committee for the 13th International Conference on Emerging Nuclear Energy Systems (ICENES 2007) has issued a call for papers for the conference to be held June 3–8, 2007, at Gazi University in Istanbul.

The main objective of ICENES is to provide a broad review and discussion of various advanced, innovative and non-conventional nuclear energy production systems to scientists, engineers, industry leaders, policy makers, decision makers and young professionals who will shape future energy supply and technology. ICENES 2007 will also open the forum to innovative non-nuclear technologies, such as hydrogen energy, solar energy, deep space exploration, etc. with an emphasis on *unthinkable ideas* with a sound scientific-technical basis. The program will include invited papers, submitted contributions in oral and poster sessions, as well as an industrial exhibition and social tours. Topical areas include:

- Advanced Fission Systems
- Fusion Energy Systems
- Accelerator Driven Systems
- Exotic Nuclear Reactor Concepts
- Transmutation and Fuel Cycle
- Co-Generation and Non-Electricity Production Applications
- Generation IV Reactors
- Space Power and Propulsion
- Deep Space Exploration, general
- Nuclear Hydrogen Production
- Radiation Protection & Shielding
- Hydrogen Energy, general including non-nuclear applications
- Solar Energy
- Other Alternative Energies
- Societal Issues

The official language of the conference will be English. The proceedings will be produced on an interactive CD-ROM with an ISBN registration number. A selection of ICENES 2007 papers will be

published in a special edition of the journal *Energy Conversion & Management*. Scientific and technical inquiries may be directed to Prof Dr. Sümer Şahin, Gazi University 06500 ANKARA/TURKEY (phone +90 (312) 212 43 04, fax +90 (312) 212 43 04, email sumersahin@icenes2007.org). Updated information will be posted to <http://www.icenes2007.org/>.

ANS Call for Papers

The organizing committee has issued the call for papers for the 2007 Annual Meeting to be held June 24–28, 2007, in Boston. The meeting theme is “It’s all About the People: The Future of Nuclear.” The meeting is organized around the following tracks:

1. Meeting Theme—It’s All About the People: The Future of Nuclear
2. Nuclear Power and New Construction of Nuclear Systems
3. Fuel Cycle, Waste Management, and Decommissioning Technologies
4. Nuclear Facility and Criticality Safety
5. Environmental Science and Technologies
6. Medical and Nonpower Applications of Radiation
7. Nuclear Science and Engineering
8. Advanced Energy Research and Emerging Technologies
9. Education, Training, and Communication with the Public
10. Nuclear Nonproliferation and Security
11. Professional Development

Summaries of 450–900 words using the ANS Template and “Guidelines for *TRANSACTIONS* Summary Preparation” may be submitted between November 1, 2006 and January 12, 2007. Summaries must be submitted electronically using Adobe Acrobat (PDF) files and original Microsoft Word documents and the ANS Electronic Submission System. Summaries not based on the ANS Template will be rejected. Summary guidelines and templates can be found at <http://www.ans.org/pubs/transactions/>; , summaries are to be submitted to <http://www.ans.org/meetings/>.

Space Nuclear Conference 2007 (SNC '07)

The second topical meeting organized by the Aerospace Nuclear Science and Technology (ANST) technical group, Space Nuclear Conference 2007 (SNC '07), will take place June 24–27, 2007, in Boston. NASA funding has been established to develop capabilities for unmanned and manned missions to the moon, Mars, and beyond. Strategies implementing nuclear based power and propulsion technology, as well as radiation shielding protection, will be an integral part of these missions.

The purpose of the meeting is to bring together research and management personnel from government, industry, academia, and the national laboratory system and provide a forum for information exchange for those who are involved in space projects. The meeting will include topics ranging from overviews of current programs and plans to detailed issues related to space travel, such as nuclear-based power and propulsion systems designs, materials, testing, safety, space environmental effects and nuclear power system radiation shielding for humans and electronic components, and human factor strategies for the safe and reliable operation of nuclear power and propulsion plants. Full-length, peer-reviewed technical papers will be published on a CD, which will be available at the conference. The call for papers and other information relevant to the conference is available at the website, <http://www3.inspi.ufl.edu/space07/>, or contact Lynne Schreiber, Conference Administrator, (phone 352-392-9722, fax 352-392-8656, email space@ans.org).

WNU Summer Institute

The 2007 WNU Summer Institute will be held July 14–August 24, near Daejeon, Korea. It will be hosted by the Korea Atomic Energy Research Institute (KAERI) and Korea Hydro & Nuclear Power Co. (KHNP). The institute was developed by the World Nuclear University in partnership with world institutions who lead in nuclear learning. Applications are invited for this intensive six-week training experience in a broad spectrum of nuclear energy issues through lectures and tutorials presented by some of the world's foremost authorities on global environment, sustainable development, nuclear-related technology and innovation, non-proliferation and nuclear industry practices. The program will also include technical tours of nuclear and industrial facilities as well as cultural and social events. As a result of the inaugural Institute in the USA in 2005 and the 2006 Institute held in Sweden and France, WNU Fellows from more than 30 countries have become part of a growing global network of future leaders in the nuclear profession. Ninety WNU Fellows will be selected from among nuclear students and young professionals to participate in the 2007 Institute. WNU Fellowship qualification criteria and application forms are available on the WNU website (www.world-nuclear-university.org), and should be submitted to the WNU Coordinating Centre no later than November 30, 2006.

AccApp'07

The jointly sponsored ANS/IAEA International Conference on Applications and Utilization of Accelerators (AccApp'07) will take place in Pocatello, Idaho, on July 30-August 2, 2007, and will be hosted by Idaho State University and the Idaho Accelerator Center.

There will be plenary sessions and a separate embedded Accelerator-Driven Subcritical System Experiments Workshop of five sessions. The organizing committee is asking for volunteers to be topic organizers and co-organizers. Contact Phil Cole, cole@athena.physics.isu.edu, and copy Phil Ferguson fergusonpd@ornl.gov and Alex Stanculescu A.Stanculescu@iaea.org on your message if you wish to volunteer.

Global '07

The main focus of the Global '07 will be “Advanced Nuclear Fuel Cycles and Systems.” The conference, to be held September 9–13, 2007, in Boise, Idaho, is jointly sponsored by the Idaho National Laboratory, American Nuclear Society, Idaho Section of American Nuclear Society, European Nuclear Society and Atomic Energy Society of Japan. Summaries are due January 26, 2007, and should support the conference topics which are:

- Advanced Integrated Fuel Cycle Concepts
- Spent Nuclear Fuel Reprocessing
- Advanced Reprocessing Technology
- Advanced Fuels and Materials
- Advanced Waste Management Technology
- Novel Concepts for Waste Disposal and Repository Development
- Advanced Reactors
- Partitioning and Transmutation
- Hydrogen Production with Nuclear Energy
- Developments in Nuclear Nonproliferation Technology, Policy, and Implementation
- Sustainability and Expanded Global Utilization of Nuclear Energy
- International Cooperation on Nuclear Energy

Conference and registration information is posted to <http://nuclear.inel.gov/global07/index.shtml>.

Regional Congress for Central and Eastern Europe



The International Radiation Protection Association (IRPA) Regional Congress for Central and Eastern Europe will be held in Brasov, Romania, September 24–28, 2007. It will be organized by the Romanian Society for Radiological Protection (RSRP). This Regional Congress will present an opportunity to debate those subjects which will determine the future of this specialty, ranging from the science of biological radiation effects to the regulation and practice of radiation protection, which includes the control of natural, occupational and medical exposures, the development of the radiological protection system, protection against non-ionizing radiation and the participation of the public. The Congress technical program will be led by renowned experts as invited speakers, with refresher courses and poster sessions, some of which will be selected for oral presentations. There will be an IRPA Associated Societies Forum and a Technical Exhibition, and the Third Workshop of the Regional East European and Central Asian Countries ALARA Network, which is supported by the IAEA, will take place during the same period. Topics include:

- Radiation biology
- Health effects of ionizing radiation
- Radiological protection infrastructure, regulation and policy
- From legal requirements to practical regional aspects
- Dosimetry and instrumentation
- Education and training
- Radiation protection at workplaces
- Radiation protection of patients
- Radiation protection, environment and public
- Waste management and treatment
- Decommissioning and site remediation
- Incidents, accidents and post accident
- Non-ionizing radiations
- Radiation protection and safety in nuclear fuel cycle

Complete and updated information can be found at <http://www.irpa2007romania.com/>.

WIN Global 2007

The Women in Nuclear (WIN) Global Conference 2007 will be held in Beijing, China, in October 2007. Bookmark <http://www.winus.org/> and check it often for details of the conference. Begin now to plan and budget to attend this important conference.

CALENDAR

November 2006

Best Practices for the New Nuclear Power Plant Certification and Combined Operating License (COL) Application Processes, Nov. 6–7, 2006, Atlanta, GA. Contact: Eric Brown (303-770-8800 x257 or ebrown@euci.com) url <http://www.euci.com/pdf/1106-nuclear-power.pdf>.

KENO V.a Course, Nov. 6–10, 2006, Oak Ridge, Tennessee. The url is <http://www.ornl.gov/sci/scale/training.htm>.

ANS Winter Meeting and Nuclear Technology Expo, “Securing the Future in Times of Change,” Nov. 12–16, 2006, Albuquerque, NM. Contact: Robert W. Kuckuck (phone 505-667-5101, email bobkuck@lanl.gov) url <http://www.ans.org/meetings/index.cgi?c=n>.

17th Topical Meeting on the Technology of Fusion Energy, an embedded topical at the ANS Winter Meeting, Nov. 12–16, 2006, Albuquerque, NM. Contact: Craig Olson, General Chair, Sandia National Laboratory, Dept. 1600 MS-1190, P.O. Box 5800, Albuquerque, NM 87185-1188 (phone 505-845-7303, fax 505-845-7890) url <http://tofe17.sandia.gov/>.

International Conference on Quality Assurance and New Techniques in Radiation Medicine, Nov. 13–15, 2006, Vienna, Austria. Contact: Mr. K. R. Shortt, Division of Human Health, International Atomic Energy Agency, Wagramer Strasse 5, P.O. Box 100, 1400 Vienna, Austria (phone +43 1 2600 21664, fax +43 1 2600 7 21662, email r.perricos@iaea.org) url <http://www-pub.iaea.org/MTCD/meetings/Announcements.asp?ConfID=146>.

International Conference on Radiation Biology/8th Annual Meeting of the Indian Society of Radiation Biology, Nov. 20–22, 2006, Varanasi, India. Contact: Y. B. Tripathi, Dept. of Medicinal Chemistry, Inst. Of Medical Sciences, Banaras Hindu University, Varanasi-221005, India (isrbhhu@yahoo.com) url www.bhu.ac.in or www.isrb-india.com.

Europe Invests Again in Nuclear Energy, Nov. 22–23, 2006, Berlin, Germany. Contact: dcbm through www.energyineurope.eu/en_register.htm.

92nd Scientific Assembly and Annual Meeting, Nov. 26–Dec. 1, 2006, Chicago, Illinois, sponsored by the Radiological Society of North America. Registration and program information can be found at <http://rsna2006.rsna.org>.

MCNPX Intermediate/Advanced Workshop, Nov. 27–Dec. 3, Santa Fe, New Mexico. Contact: Bill Hamilton (phone 806-928-6021, email bill@mcnpxworkshops.com) url <http://mcnpxworkshops.com>.

December 2006

Region I Conference 2006 - "Women in Nuclear and the Nuclear Renaissance" December 4-5, 2006, Radisson Lackawanna Station Hotel, Scranton, PA. Contact: Nancy Bulkeley at 860-444-5581 or nancy_h_bulkeley@dom.com, url <http://www.winus.org/>.

International Conference on Lessons Learned from Decommissioning of Nuclear Facilities and the Safe Termination of Nuclear Activities, Dec. 11–15, 2006, Athens, Greece, sponsored by the International Atomic Energy Agency. Contact: Dennis Reisenweaver, Div. of Radiation, Transport and Waste Safety, IAEA, P.O. Box 100, Wagramer Strasse, A-1400 Vienna, Austria. (phone 43-1-2600-22852, fax 43-1-26007, email d.reisenweaver@iaea.org).

January 2007

MCNPX Advanced Workshop, Jan. 8–12, 2007, Las Vegas, Nevada. Contact: Bill Hamilton (phone 806-928-6021, email bill@mcnpxworkshops.com) url <http://mcnpxworkshops.com>.

3D S.UN.COP 2007, Jan. 22–9 Feb. 2007, Texas A&M University, College Station, Texas. Contact: Alessandro Petruzzi (email a.petruzzi@ing.unipi.it) url <http://dimnp.ing.unipi.it/3dsuncop>.

MCNPX Introductory Workshop, Jan 29–Feb 2, Paris, France. Contact: Bill Hamilton (phone 806-928-6021, email bill@mcnpxworkshops.com) url <http://mcnpxworkshops.com>.

Safety Cases for the Deep Disposal of Radioactive Waste—Where Do We Stand? International symposium organized by the OECD NEA, Jan. 23–25, 2007, Paris. Contact: Betsy Forinash, NEA Radioactive, 12 Blvd. des Îles, 92130 Issy-les-Moulineaux, France (email igsc@oecd.org).

February 2007

Conference on Nuclear Training and Education (CONTE III), Feb. 4–7, 2007, Jacksonville, FL. Registration and Meeting Information: <http://www.ans.org/goto/nad.cgi?id=1157691600-16>.

Waste Management 2007 (WM 2007), Feb. 25–March 1, 2007, Tucson, Arizona. Contact: Gary Benda (phone 803-345-2170 or email gbenda@wmarizona.org) url www.wmsym.org.

March 2007

WIN Region II Conference 2007, March 5–6, 2007, Atlanta, GA. Contact: Equilla Minga at mingabe@inpo.org, url <http://www.winus.org/>.

MCNPX Intermediate Workshop, Mar 12–16, 2007, San Francisco, California. Contact: Bill Hamilton (phone 806-928-6021, email bill@mcnpxworkshops.com) url <http://mcnpxworkshops.com>.

First International Conference on Physics and Technology of Reactors and Applications (PHYTRA1), March 14–16, 2007, Marrakech City, Morocco. Contact: Pr. A. Jehouani, Faculty of Sciences Semlalia, Dept. of Physics, University Cadi Ayyad- Marrakech, Morocco (email phytra@ucam.ac.ma or jehouani@yahoo.com, fax 212 44 43 74 10) or Pr. L. Erradi, GMTR President, Mohammed V. Agdal University, Faculty of Sciences, Department of Physics, B. P. 1014 Rabat, Morocco (email erradi@fsr.ac.ma or erradi@hotmail.com, fax 212-0-37-77-89-73) url <http://www.fst.ac.ma/gmtr/phytra1/phytra1.html>.

International Workshop on Monte Carlo Codes, March 26–27, 2007, NPL, Teddington, UK. Contact: David Shipley (phone +44 (0) 20 8943 6252, fax +44 (0) 20 8943 6070, email david.shipley@npl.co.uk), Mark Bailey (phone +44 (0) 20 8943 6797, fax +44 (0) 20 8943 6070, email mark.bailey@npl.co.uk) or Alan DuSautoy (phone +44 (0) 20 8943 6563, fax +44 (0) 20 8943 6070, email alan.dusautoy@npl.co.uk) url <http://www.npl.co.uk/ionrad/training/montecarlo/>.

13th UK Monte Carlo User Group Meeting (MCNEG 2007), March 28–29, 2007, NPL, Teddington, UK. Contact: David Shipley (phone +44 (0) 20 8943 6252, fax +44 (0) 20 8943 6070, email david.shipley@npl.co.uk), Mark Bailey (phone +44 (0) 20 8943 6797, fax +44 (0) 20 8943 6070, email mark.bailey@npl.co.uk) or Alan DuSautoy (phone +44 (0) 20 8943 6563, fax +44 (0) 20 8943 6070, email alan.dusautoy@npl.co.uk) url <http://www.npl.co.uk/ionrad/training/montecarlo/>.

April 2007

Joint International Topical Meeting on Mathematics & Computations and Supercomputing in Nuclear Applications (M&C+SNA) will be held April 15–19, 2007, in Monterey, California. Contact: general questions (mcinfo@nuc.berkeley.edu); submit questions regarding the program (vujic@nuc.berkeley.edu) url <http://mc-sna07.nuc.berkeley.edu/>.

MCNPX Introductory Workshop, April 30–4 May, 2007, Honolulu, Hawaii. Contact: Bill Hamilton (phone 806-928-6021, email bill@mcnpxworkshops.com) url <http://mcnpxworkshops.com>.

June 2007

ICENES 2007, June 3–8, 2007, Istanbul. Contact: Prof Dr. Sümer Şahin, Gazi University 06500 Ankara/Turkey Contact: Prof Dr. Sümer Şahin, Gazi University 06500 Ankara/Turkey (phone +90 312 212 43 04, fax +90 312 212 43 04, email sumersahin@icenes2007.org) url <http://www.icenes2007.org/>.

MCNPX Introductory Workshop, June 4–8, 2007, Santa Fe, New Mexico. Contact: Bill Hamilton (phone 806-928-6021, email bill@mcnpxworkshops.com) url <http://mcnpxworkshops.com>.

ANS Annual Meeting, “It's All About the People: The Future of Nuclear,” June 24–28, 2007, Boston, Massachusetts. The url is <http://www.ans.org/meetings/>.

Space Nuclear Conference 2007 (SNC '07), an embedded topical of the ANS Annual Meeting, June 24–28, 2007, Boston. Contact: Lynne Schreiber, Conference Administrator, (phone 352-392-9722, fax 352-392-8656, email space@ans.org) url www.ans.org/goto/space07.

July 2007

U.S. Women in Nuclear Conference 2007, July 15-17, 2007, Anaheim, Calif. URL <http://www.winus.org/>.

September 2007

Global '07 “Advanced Nuclear Fuel Cycles and Systems” Sept. 9–13, 2007, Boise, Idaho. Information is posted at <http://nuclear.inel.gov/global07/contacts.shtml>.

MCNPX Advanced Workshop, Sept 17–21, 2007, Santa Fe, New Mexico. Contact: Bill Hamilton (phone 806-928-6021, email bill@mcnpxworkshops.com) url <http://mcnpxworkshops.com>.

October 2007

MCNPX Intermediate Workshop, October 22–26, 2007, Europe. Contact: Bill Hamilton (phone 806-928-6021, email bill@mcnpxworkshops.com) url <http://mcnpxworkshops.com>.