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# Radiation Safety Information Computational Center

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RSICC staff will be participating in Global 2007 in Boise, ID, September 9–13. Requests submitted during that time will be processed the following week.

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## **OSTI Celebrates 60 Years of Knowledge Sharing** *Accelerating Science Discovery: From the '40s to the Future*

Just over 60 years ago General Leslie Groves, commander of the Manhattan Engineer District in Oak Ridge, TN, mandated that all classified and unclassified information related to the atomic bomb be brought together into one central location. Thus, in 1947, the precursor to the Office of Scientific and Technical Information (OSTI, [www.osti.gov](http://www.osti.gov)) was born.

U.S. Department of Energy's Office of Science will commemorate the 60th Anniversary of OSTI on September 18.

OSTI is committed to ensuring citizens have access to their government's research. For many years, OSTI operated one of the few federal printing plants in the United States, and in some years cranked out more than 1 million pages of scientific information. In its earliest years, OSTI produced the world-famous Nuclear Science Abstracts, which widely expanded access to nuclear science information.

While OSTI holds over 1 million full-text documents in hard copy at its facility, it also handles more than 80 million electronic transactions per year through its web tools at [www.osti.gov](http://www.osti.gov). In 2007, OSTI developed and now maintains <http://worldwidescience.org/>, a web gateway to more than 200 million pages of scientific information from 19 portals in 12 countries.

The public is invited to share in OSTI's celebration at a free community lecture and reception held at 7 pm at the American Museum of Science and Energy (AMSE, [www.amse.org](http://www.amse.org)). Dr. Eugene Garfield will

present “Standing on the Shoulders of Giants – tracing the impacts of information retrieval systems on science policy.” Dr. Garfield is a pioneer in information retrieval systems and inventor of Science Citation Index. He is founding publisher/editor of *The Scientist*, author of over 1,000 articles and books, and has lectured widely throughout the world.

As part of its 60th celebration, OSTI is also participating in the AMSE Places & Spaces Mapping Science exhibit ([www.scimaps.org](http://www.scimaps.org)). OSTI’s Mapping Astrophysics from DOE R&D Results will be on display from September 7 to January 7. The illustrations in OSTI’s display are based on a key DOE database, Information Bridge ([www.osti.gov/bridge](http://www.osti.gov/bridge)).

OSTI’s mission is to advance science and sustain technological creativity by making R&D findings available and useful to DOE researchers and the American people. OSTI is located in Oak Ridge at 1 Science.gov Way.

## Changes to the Computer Code and Data Collection

### [CCC-732/SCALE 5.1 and ORIGEN-ARP 5.1](#)

Oak Ridge National Laboratory, Oak Ridge, Tennessee, contributed an update for compatibility with Windows Vista to this modular code system for performing Standardized Computer Analyses for Licensing Evaluation. The initial release of SCALE 5.1 was developed for Windows XP and is not fully compatible with the new Windows Vista operating system. An updated installation package for Windows Vista (which also works on Windows XP) is now included in the RSICC distribution package. If you already obtained SCALE 5.1 from RSICC and need to run on Vista, you are eligible to obtain the update at no cost. Please complete online order forms, **noting in the comments field that you received SCALE 5.1 and need to install it on Vista.**

**The only changes made to the RSICC package are for Windows Vista compatibility.** Note that administrator privileges are now required to install the code system under Windows operating systems. Be sure to read the July 2007 issue of the SCALE Newsletter for news on other issues. See the developers' website and the SCALE 5 electronic notebook for details on updates and tips on running the code and for additional updates available via download.

**SCALE newsletter:** <http://www.ornl.gov/sci/scale/newsletter.htm>

**SCALE website:** <http://www.ornl.gov/sci/scale>

**Electronic notebook:** <http://rsicc.ornl.gov/rsicnew/CFDOCS/scale5enotebook.cfm>

The SCALE system was developed for the Nuclear Regulatory Commission to satisfy a need for a standardized method of analysis for the evaluation of nuclear fuel facility and package designs. In its present form, the system has the capability to perform criticality, shielding, radiation source term, spent fuel depletion/decay, and reactor physics analyses using well established functional modules in automated sequences designed for ease of use.

SCALE 5.1 runs on Windows XP and Unix, including Linux and Intel Mac OS/X. The Windows version contains Fortran source and executable files created with Version 7.1 of the Lahey F95 compiler on a Pentium 4 (32-bit) running Windows XP Service Pack 2. Windows XP and Windows Vista are now supported, but earlier versions of Windows are not supported. The Windows version runs on Pentium personal computers with a minimum of 512 MB RAM (1 GB or more is recommended). Nominal hard disk requirements are 5 GB for a complete installation, including space for running sample problems. The UNIX/Linux/Mac version of SCALE was not modified in this update. Users are advised to check the SCALE Notebook for possible solutions if they encounter problems compiling. Reference: ORNL/TM-2005/39, Version 5.1, Vols. I–III, November 2006. Fortran 90/95 and C; HP/Compaq Alpha, Linux, Mac OS X and Windows XP and Vista (C00732MNYCP01).

## [PSR-199/HEATING 7](#)

Oak Ridge National Laboratory, Oak Ridge, Tennessee, contributed an update to this heat conduction analysis code system. The Windows package was updated with the addition of a verification report for HEATING 7.3 and corresponding test case input and output files plus an executable that allows one to run in batch mode from the DOS prompt. This package replaced the previous Windows version. No changes were made to the Unix version.

HEATING can solve steady-state and/or transient heat conduction problems in one-, two-, or three-dimensional Cartesian, cylindrical, or spherical coordinates. A model may include multiple materials; and the thermal conductivity, density, and specific heat of each material may be both time- and temperature-dependent. The thermal conductivity may also be anisotropic. Materials may undergo change of phase. Thermal properties of materials may be input or may be extracted from a material properties library. Heat-generation rates may be dependent on time, temperature, and position, and boundary temperatures may be time- and position-dependent.

The PC version of HEATING 7.3 was tested under Windows XP, Windows 2000 and Windows Vista. The executables included in HEATING 7.3 PC were created under Windows XP using Compaq Visual Fortran Version 6.6. The package is transmitted on a CD-ROM in a self-extracting, compressed Windows file and a GNU compressed tar file for Unix. Reference: ORNL/TM-12262 (February 1993; update to Chapter 4, September 1998), and ORNL Internal Report (March 2005). Fortran 90 for Pentium/Windows XP and IBM RS/6000 (P00199MNYCP06).

## [DLC-225/SINBAD-2007.05](#)

OECD Nuclear Energy Agency Data Bank, Issy les-Moulineaux, France, contributed an updated version of this electronic database, which was developed to store a variety of radiation shielding benchmark data so that users can easily retrieve and incorporate the data into their calculations. SINBAD-2007.05 includes some minor corrections over the previous SINBAD-2007 package in addition to the new Reactor Shielding benchmark, SINBAD-RFNC-PHOTONS2—Photon Spectra from H<sub>2</sub>O, SiO<sub>2</sub> and NaCl. This release, dated May 2007, incorporates 84 benchmark experiments.

An international effort between the OECD Nuclear Energy Agency (NEA) and ORNL Radiation Safety Information Computational Center (RSICC) and invaluable contributions from many international nuclear data experts to the compilation, validation and review of the data combined to create this database. SINBAD is an excellent data source for users who require the quality assurance necessary to developing cross-section libraries or radiation transport codes. The future needs of the scientific community are best served by the electronic database format of SINBAD and its user-friendly interface, combined with its data accuracy and integrity. It includes data from nuclear reactor shielding, fusion blankets and accelerator shielding experiments.

The guidelines developed by the Benchmark Problems Group of the American Nuclear Society Standards Committee (ANS-6) on formats for benchmark problem description have been followed by SINBAD. SINBAD data include benchmark information on (1) the experimental facility and the source; (2) the benchmark geometry and composition; and (3) the detection system, measured data, and an error analysis. A reference section is included with the data. Relevant graphical information, such as experimental geometry or spectral data, is included. All information that is compiled for inclusion with SINBAD has been verified for accuracy and reviewed by two scientists. The experimental results are distributed in tabular ASCII form that can easily be exported to different computer environments for further use. Reference: *Radiation Protection Dosimetry* (2005), Vol.116, No.1-4, pp.558-561. HTML, PDF and ASCII text files; PC, UNIX Workstations, MAC (D00225MNYCP02).

## 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](mailto: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.

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### Fall 2007 SCALE Training Courses at ORNL

Date	Title	Description
October 15–19	<b>ORIGEN-ARP/TRITON</b>	ORIGEN-ARP: Isotopic depletion/decay and source terms using latest version of ORIGEN TRITON: 2-D reactor physics analysis using NEWT
October 22–26	<b>KENO V.a</b>	CSAS/KENO V.a (including <a href="#">KENO3D</a> and GeeWiz)
October 29– November 2	<b>TSUNAMI* Sensitivity/ Uncertainty Tools</b>	1-D and 3-D sensitivity/uncertainty analysis using XSDRNPM and KENO V.a
*Experienced KENO users only		

The registration fee is \$1800 for each course. A late fee of \$300 will be applied for late registrations. 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](http://www.ornl.gov/sci/scale/course_description.htm).

### Introductory and Advanced MCNP Visual Editor Training

Date (Click Date for Info)	Class	Course Content	Location
<a href="#">Nov. 5–9, 2007</a>	Introduction to MCNP using the MCNP/MCNPX Visual Editor	<a href="#">Detailed Description</a>	Richland, WA

Classes are 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 introductory classes combine teaching on MCNP physics, along with instructions on how to use the Visual Editor. The advanced class assumes the user has experience using MCNP or MCNPX and focuses on Visual Editor topics. Computer demonstrations and exercises will focus on creating and interrogating input files with the Visual Editor. Advanced visualization work using MCNP will also be

demonstrated. Both the introductory and advanced classes 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 course description and registration information can be found at <http://www.mcnpvised.com/index.html>.

### MCNP Class Schedule

October 1–4, 2007	<a href="#">Variance Reduction with MCNP</a>	Los Alamos National Laboratory
October 9–12, 2007	<a href="#">Criticality Calculations with MCNP</a>	Los Alamos National Laboratory
October 15–19, 2007	<a href="#">Introduction to MCNP</a>	Los Alamos National Laboratory

Introductory classes are for people who have little or no experience with MCNP. This class surveys the features of MCNP so the beginning user will be introduced to the capabilities of the program and will have hands-on experience at running the code to solve simple problems. Course topics include Basic Geometry, Source Definitions, Output (Tallies), Advanced Geometry (repeated structures specification), Variance Reduction Techniques, Statistical Analysis, Criticality, Plotting of Geometry and Tallies, and Neutron / Photon / Electron Physics.

Advanced classes are for people with MCNP experience who want to extend their knowledge and gain depth of understanding. Most areas of MCNP operation will be discussed in detail, with emphasis on Advanced Geometry, Advanced Variance Reduction Techniques, and other advanced features of the program. Time will be available to discuss approaches to specific problems of interest to students. Classes on specific topics are offered when there is sufficient interest. In the recent past, classes on variance reduction and on criticality have been taught.

Registration and the most current information can be found at <http://mcnp-green.lanl.gov/classinformation.html>.

### [“CMPWG-II” Computational Medical Physics Working Group Workshop II](#)

“CMPWG-II” Computational Medical Physics Working Group Workshop II will be hosted by the University of Florida, in Gainesville on September 30–October 3, 2007. This is the Second Computational Medical Physics Working Group Workshop (“CMPWG-II”). The first workshop was held at Oak Ridge National Laboratory in 2005 and was well-attended. Guest speakers from Shands Hospital Oncology and Radiology will discuss the unique challenges ahead for medical physics simulations in therapy and diagnostic applications. The purpose of this meeting is to provide a technical exchange of ideas and a forum for novel approaches to simulating radiation transport and dosimetry for accurate and efficient assessments for the enhancement of dose assessment, treatment planning, image quality evaluations, calibration, etc. Conference registration is \$300/person, \$100/student participants.

Full papers in MS-Word or PDF format for approved abstracts are due upon arrival at the workshop and will be published as a Technical Proceedings. Instructions for accepted papers will be provided at the time of acceptance. “Best” quality full papers presented upon registration will be selected and forwarded for further peer review and publication in a special edition of the *Nuclear Technology Journal*, a publication of the American Nuclear Society. A template is available for download at <http://cmpwg.ans.org>. The Technical Program Committee will select the best paper submitted by a graduate.

The conference will be held at the Hilton Hotel and Conference Center; reservations may be made directly with the hotel by specifying the rate code to be supplied later. Questions on facilities related to the workshop can be directed to Geri Roberts, 352-392-1401, x306. For information about the conference, contact Dr. Glenn Sjoden, (352) 392-1401, x323, fax: (352) 392-3380, email: [sjoden@ufl.edu](mailto:sjoden@ufl.edu).

**NOTE: A limited number of proceedings from the first workshop are available. You may request that a copy be mailed to you by contacting [riceaf@ornl.gov](mailto:riceaf@ornl.gov) with your name and mailing address. Please add “ORNL/TM-2006/7” to the subject line.**

## ORNL Users Week 2007, October 8-11, 2007

ORNL Users Week will focus on the scientific resources of four ORNL user facilities funded by the DOE Office of Basic Energy Sciences.

*Spallation Neutron Source*—The SNS is an accelerator-based neutron source that will provide the most intense pulsed neutron beam in the world for scientific R&D. User experiments are underway on the first three instruments of the SNS and eight more instruments will begin commissioning in the next year.

*High Flux Isotope Reactor*—The HFIR is the highest flux reactor-based source of neutrons for condensed matter research in the U.S. There are users at five HFIR instruments with two others being commissioned.

*Center for Nanophase Materials Sciences*—The CNMS is a collaborative nanoscience user research facility for the synthesis, characterization, theory/modeling/simulation, and design of nanoscale materials. It provides users with access to a complete suite of nanoscience research capabilities (facilities and expertise) housed in a new 80,000-ft<sup>2</sup> building and will mark its second anniversary as a user facility in October.

*Shared Research Equipment*—ShaRE is electron beam microcharacterization facility providing access to a suite of advanced instruments and staff scientists for the mm-to-nm-scale characterization of materials.

The meeting will acquaint current and prospective users with the research capabilities of the user facilities through presentations, tours, and workshops; showcase important scientific research challenges being addressed at these Oak Ridge facilities by both users and facility scientists and introduce prospective users to the user proposal process. It will also provide an opportunity for users to offer feedback on developments in next-generation instrumentation, such as:

- Developing time-resolved techniques suitable for studying non-equilibrium phenomena at microsecond timescales, e.g. in pump-probe experiments;
- Multi-parameter sample environments (perhaps high magnetic field and high pressure and low temperature simultaneously, biological systems);
- Multiple characterization techniques on the same instrument, such as x-ray, neutron, electron transport, and mechanical properties;
- Computational needs and capabilities for neutron scattering and nanoscience;
- Nanoscale synthesis and characterization; and
- Environmental electron microscopy.

ORNL Users Week is the first User Meeting to report on results of experiments using the newly commissioned instruments at the pulsed Spallation Neutron Source and the steady-state High Flux Isotope Reactor. We expect interest in these facilities will dramatically increase because of the potential of these

instruments and others in the design and construction phase. This will provide an opportunity for biologists, chemists, materials scientists, and physicists to describe their needs for experimental apparatus including sample environments and new instruments. The neutron scattering portion, SHUG2007, will provide an unprecedented opportunity both for those experienced with neutron scattering and those new to the technique to learn about the capabilities at Oak Ridge National Laboratory.

Complete details, including scholarships, agenda, and registration are available at <http://neutrons.ornl.gov/workshops/users2007/index.shtml>. Contact: Allen E. Ekkebus, Neutron Scattering Science Division User Office, Oak Ridge National Laboratory, 1 Bethel Valley Road, P.O. Box 2008, Box 6460, Oak Ridge, TN 37831-6460 (phone 865 241-5644, fax 865 576-0174, email [ekkebusae@ornl.gov](mailto:ekkebusae@ornl.gov)).

## **NUPPAC' 07**

The 6th Conference on Nuclear and Particle Physics (NUPPAC '07) will be held Nov. 17–21, 2007, in Luxor, Egypt. The conference topics are:

- nuclear scattering and reactions,
- nuclear models and spectroscopy,
- high energy and particle physics,
- neutron and reactor physics,
- plasma and fusion physics,
- relativistic and quantum physics,
- computer codes (modeling, simulation, analysis),
- nuclear analytical techniques,
- reactor and accelerator utilization,
- detectors and instrumentation,
- radiation measurements and dosimetry, and
- applied nuclear physics.

The registration and instructions for submitting abstracts to the conference can be found at the website, [http://www.geocities.com/Athens/Library/7348/NUPPAC\\_07.html](http://www.geocities.com/Athens/Library/7348/NUPPAC_07.html). Correspondence should be addressed to Prof. Dr. M.N.H. Comsan, Chairman of NUPPAC' 07, Egyptian Nuclear Physics Association (ENPA), 3 Ahmed Elzomor St., Elzohour District, Nasr City, Cairo, Postal Code 11787, Egypt (phone 202-4021018, fax 202-2876031, email [mnhcomsan@menanet.net](mailto:mnhcomsan@menanet.net) or [comsanmn@hotmail.com](mailto:comsanmn@hotmail.com)).

## **2008 HPS Midyear Meeting “Radiation-Generating Devices”**

The 2008 Midyear Health Physics Society meeting “Radiation-Generating Devices” (<http://hpschapters.org/2008midyear/>) will be held at Oakland Marriott Convention Center in California, January 27-30, 2008. It is sponsored by the Northern California Chapter of HPS and the HPS Accelerator Section. The meeting will present the opportunity and a forum to exchange technical information and ideas in a wide range of topics from radiation protection of accelerators, lasers and radioisotopic source devices in research, medical, industrial and homeland security applications, as well as detection instrumentation, calibration, dosimetry, biological effects of radiation to regulatory and legal concerns. The technical program will be led by experts in the field. There will be oral and poster presentations, Technical Exhibition, and a 3-day Professional Development School titled “Topics in Accelerator Health Physics” (<http://hps.org/pds2008/index.html>) following the meeting at the same place. The organizing committee has issued the call for abstracts which can be found at [http://hpschapters.org/2008midyear/Call\\_for\\_Abstracts.pdf](http://hpschapters.org/2008midyear/Call_for_Abstracts.pdf). The meeting topics include:

- The Health Physics Challenges of New Accelerator Initiatives
- Medical Therapy and Imaging (PET, Linacs, X-rays, etc.)
- Research Accelerators and Lasers
- Radiation-Generating Devices in Industry (radiography, ion implantation, neutron generators, food irradiation, well logging, etc.)
- Homeland Security Considerations (cargo and human imaging, active neutron interrogation, etc.)
- The Evolution of Health Physics for Radiation-Generating Devices (accelerator, medical, industrial)
- General Health Physics Topics of Radiation-Generating Devices (detection instrumentation, calibration, dosimetry, shielding, interlocks, radiation damage and activation, biological effects, field and environmental monitoring, regulatory, etc.)

Complete and updated information can be found at <http://hpschapters.org/2008midyear/>.



## WM2008

The theme for the WM2008 is “*Phoenix Rising: Moving Forward in Waste Management.*” The conference will be held in Phoenix, Arizona, February 24–28, 2008. Papers describing research, development and operational experience over the complete spectrum of nuclear waste activities will be presented. Topics are categorized into general tracks which are listed in the Call for Papers. Check the website for updates to conference information often. Technical program questions may be directed to WM08 Program Advisory Committee Chairman Gary Benda at +1-803-345-2170 or email [gbenda@wmarizona.org](mailto:gbenda@wmarizona.org). For non-technical questions related to the Program, authors and speakers may contact: WM Administration at +1-520-696-0399 or [papers@wmarizona.org](mailto:papers@wmarizona.org), or WM Technical Program Coordinator Michelle Rehmann - [michelle\\_rehmann@wmarizona.org](mailto:michelle_rehmann@wmarizona.org).

## ICRS-11 and RPSD-2008

The theme for this collaboration of the 11th International Conference on Radiation Shielding (ICRS-11) and the 15th Topical Meeting of the Radiation Protection and Shielding Division (RPSD-2008) of the American Nuclear Society is *Finding Your Way through the Shielding Maze!* The conference will be held April 13–18, 2008, at Callaway Gardens in Pine Mountain, Georgia, USA. This conference explores the scientific, technological and engineering issues associated with particle and ionizing radiation shielding in its broadest context, including nuclear energy systems, accelerator facilities, space and other radiation environments. It is one of the premier international radiation shielding events, regularly drawing hundreds of the world’s top scientists and engineers. The technical program will include plenary sessions, parallel oral technical sessions and poster sessions.

The call for papers has been issued and electronic submission will open on September 1, 2007. Technical session topics include:

- |  |   |
|--|---|
| • Accelerator Shielding                | • Advanced Phantoms for Radiation Dosimetry                   |
| • Aircraft Dosimetry Issues            | • Nuclear Modeling for Heavy Charged Particle Transport       |
| • Shielding Benchmarks                 | • Activation and Transportation Characterization Calculations |
| • Electron-Photon Data                 | • Radiation Detection and Measurements                        |
| • Monte Carlo Methods and Applications |   |
| • Medical Applications                 |   |
| • Nuclear Data                         |   |

- Residual Activity
- Radiation Metrology and Regulations
- Radiation Protection
- Regulations and Reactor Shielding
- Shielding of Spallation Sources and Related Facilities
- Radiation Protection Issues and Methods for Deep Space Exploration
- Transmutation and Storage of Radioactive Materials
- Deterministic Methods
- Hybrid Methods
- Shielding of Synchrotron Light Sources
- Dosimetry Issues

The authors of contributed work presented at the conference will be invited to submit a manuscript for inclusion in special issue(s) of the American Nuclear Society (ANS) journal, *Nuclear Technology*. All submitted papers will be subject to full peer review. Questions regarding the technical program should be addressed to: Technical Program Chair, Michele Sutton Ferenci (email [michele.sutton@mindspring.com](mailto:michele.sutton@mindspring.com), phone 1-404 851-7077). Complete details and templates will be posted soon at <http://icrs11.me.gatech.edu>.

## **International Symposium on Reactor Dosimetry**

The 13<sup>th</sup> International Symposium on Reactor Dosimetry will be held the May 25–30, 2008 in the Hotel Akersloot, 6 kilometers south of Alkmaar in the Netherlands. This Symposium has a long history and has been organized approximately every three years alternately in Europe and the United States or Japan. The Symposium theme is dosimetry for the assessment of irradiated reactor materials and reactor experiments, featuring radiation metrology techniques, data bases, and standardization. The Call for Papers can be reviewed on the official symposium website <http://safelife.jrc.nl/ISRDL/>. Abstracts for paper submittal are due October 1, 2007 and should be associated with one of the following topics:

- Reactor surveillance and plant life management
- Data evaluation, uncertainty analysis, and adjustment methods
- Retrospective dosimetry and decommissioning
- Dosimetry for assessment of reactor structural materials
- Neutron and gamma-ray transport calculations
- Dosimetry for core characterization and reactor physics
- Characterization of neutron and gamma ray environments
- Damage correlation and exposure parameters
- Monitoring of irradiation experiments
- Nuclear data for dosimetry
- Benchmarking, calibrations, and standards
- Fusion and high energy neutrons
- Advanced reactors and accelerator neutron sources
- Irradiation processing and testing of electronics
- Experimental techniques, new developments, and optical methods
- Neutron dosimetry for space nuclear power

This Symposium is jointly organized by ASTM Committee E 10 on Nuclear Technology and Applications and the European Working Group on Reactor Dosimetry (EWGRD). The 13<sup>th</sup> symposium is hosted by The Joint Research Centre, Institute for Energy, Petten.

## **NPAE-Kyiv2008**

The Second International Conference on Current Problems in Nuclear Physics and Atomic Energy (NPAE-Kyiv2008) will be held June 9–15, 2008 in Kyiv, Ukraine.

The first International Conference on Current Problems in Nuclear Physics and Atomic Energy (NPAE-Kyiv2006) was held in Kyiv (Ukraine) in 2006; the proceedings are available at [http://www.kinr.kiev.ua/NPAE\\_Kyiv2006/](http://www.kinr.kiev.ua/NPAE_Kyiv2006/).

This conference brings together scientists to share knowledge in current problems of nuclear physics and atomic energy. The NPAE-Kyiv2008 conference will cover the following topics:

- collective processes in atomic nuclei,
- nuclear reactions at low and high energies,
- nuclear structure and decay data,
- rare nuclear processes,
- nuclear astrophysics,
- neutron and reactor physics,
- nuclear data and data evaluation,
- problems of atomic energy,
- applied nuclear physics in medicine and industry, and
- experimental facilities and detection techniques.

The conference will consist of plenary sessions, parallel sessions, and poster sessions. Plenary sessions are composed of invited talks, and parallel sessions consist of invited talks and oral presentations selected from contributions. The working language of the conference is English.

The NPAE-Kyiv2008 conference is organized by the National Academy of Sciences of Ukraine (NASU, <http://www.nas.gov.ua>), the Institute for Nuclear Research of NASU, Kyiv (KINR, <http://www.kinr.kiev.ua>) in collaboration with Taras Shevchenko National University of Kyiv (NTSU, <http://www.univ.kiev.ua>). The conference chairman is I.M. Vyshnevskiy (KINR) and the scientific secretaries are V.Yu. Denisov (KINR) and O.O.Gritzay (KINR).

The Proceedings of the Conference will be published by the Publishing Department of KINR; selected papers will be also published in *Nuclear Physics and Atomic Energy* (<http://jnuae.kinr.kiev.ua>).

Please address all the mail and questions concerning scientific program, publication, etc. to: Dr. Vitali Yu. Denisov or Dr. Olena O. Gritzay, Institute for Nuclear Research, Prospect Nauky, 47, Kyiv, 03680, Ukraine (email [npae-kyiv2008@kinr.kiev.ua](mailto:npae-kyiv2008@kinr.kiev.ua)). Information on the conference may be found at the website <http://www.kinr.kiev.ua/NPAE-Kyiv2008>.

## PHYSOR'08

The International Conference on the Physics of Reactors (PHYSOR'08) will be held at the Kursaal Conference Center, Interlaken, Switzerland, September 14–19, 2008. The conference theme is “Nuclear Power: A Sustainable Resource,” and is jointly organized by the Paul Scherrer Institut and the Swiss Nuclear Society. This international conference follows the tradition of the earlier PHYSOR meetings and seeks to provide a forum for worldwide experts in reactor physics, nuclear power plant analysis and related technologies.

Main topic areas include:

- neutronics calculations and experiments,
- reactor analysis methods,
- fuel and core design,
- fuel cycle physics,
- advanced systems,
- nuclear power and sustainable development,
- reactor materials challenges,
- nuclear safety analysis and multiphysics,

- experimental facilities for safety research, and
- biomedical and other non-power applications.

August 15, 2007, is the opening date for submission of extended summaries of 1,000–1,500 words. The submission deadline is October 5, 2007. Relevant information may be found at <http://www.physor2008.ch/>.

## CALENDAR

### September 2007

International Radiation Protection Association (IRPA) Regional Congress for Central and Eastern Europe, Sept. 24–28, 2007, Brasov, Romania. Contact: Constantin Milu, Institute of Public Health, Str. dr. Leonte No.1-3, RO-050463 Bucharest 35, Romania (phone (40 21) 3141971, fax (40 21) 3183635, email [irpa2007@ispb.ro](mailto:irpa2007@ispb.ro)) url: <http://www.irpa2007romania.com/>.

“CMPWG-II” Computational Medical Physics Working Group Workshop II, Sept. 30–Oct 3, 2007, University of Florida-Gainesville. Contact: Dr. Glenn Sjoden, (352) 392-1401, x323, fax: (352) 392-3380, email: [sjoden@ufl.edu](mailto:sjoden@ufl.edu).

### October 2007

CONRAD WP4 workshop on “Uncertainty Assessment in Computational Dosimetry: A Comparison of Approaches,” Oct. 1–3, 2007, Bologna, Italy. Contact: Dr. Gianfranco Gualdrini, ENEA-Instituto di Radioprotezione, 16 Via dei colli, 40136 Bologna (BO), Italy (email [guald@bologna.enea.it](mailto:guald@bologna.enea.it), phone 39 051-6098350, fax 39 051-6098003) url: <http://www.eurados.org/>.

14<sup>th</sup> BEAMnrc Workshop, Oct. 1–4, 2007, Ottawa, Canada. Contact: Dave Rogers, Physics Department, Carleton University, 1125 Colonel By Drive, Ottawa, Ontario, Canada, K1S 5B6 (phone 613-520-2600x4374, fax 613-520-4061, e-mail [BEAM\\_Workshop@irs.phy.nrc.ca](mailto:BEAM_Workshop@irs.phy.nrc.ca)) url <http://www.physics.carleton.ca/~drogers/BEAM/course/>.

10<sup>th</sup> International Nuclear Power Safety and Nuclear Education Conference, Oct. 1–7, 2007, Obninsk, Russia. Contact: Ms. Elena Zinovieva, Obninsk State Techn. Univ. ([zev@iate.obninsk.ru](mailto:zev@iate.obninsk.ru)).

ORNL Users Week, Oct. 8–11, 2007, Oak Ridge National Laboratory, Oak Ridge, Tennessee. Contact: Allen E. Ekkebus, Neutron Scattering Science Division User Office, Oak Ridge National Laboratory, 1 Bethel Valley Road, P.O. Box 2008, Box 6460, Oak Ridge, TN 37831-6460 (phone 865 241-5644, fax 865 576-0174, email [ekkebusae@ornl.gov](mailto:ekkebusae@ornl.gov)).

3D S.UN.COP CR(2007), Oct. 8–26, 2007, McMaster University (Hamilton) and in Niagara Falls, Ontario, Canada. Contact: Dr. A. Petruzzi, University of Pisa (email [a.petruzzi@ing.unipi.it](mailto:a.petruzzi@ing.unipi.it)) url <http://dimnp.ing.unipi.it/3dsuncop/CR2007/>.

SCALE Training: ORIGEN-ARP/TRITON Course, Oct. 15–19, 2007, Oak Ridge National Laboratory, Oak Ridge, TN. Information and registration can be found at <http://www.ornl.gov/sci/scale/training.htm>.

SCALE Training: KENO-VI Course, Oct. 22–26, 2007, Oak Ridge National Laboratory, Oak Ridge, TN. Information and registration can be found at <http://www.ornl.gov/sci/scale/training.htm>.

MCNPX Intermediate Workshop, Oct. 22–26, 2007, Europe. Contact: Nancy Butner, D-5 Nuclear Design and Risk Analysis Group (phone 505-667-8016, email [nbutner@lanl.gov](mailto:nbutner@lanl.gov)) url <http://mcnpx.lanl.gov/>.

SCALE Training: TSUNAMI Sensitivity/Uncertainty Tools Course, Oct. 29–Nov. 2, 2007, Oak Ridge National Laboratory, Oak Ridge, TN. Information and registration can be found at <http://www.ornl.gov/sci/scale/training.htm>.

## November 2007

ANS/ENS International Meeting and Nuclear Technology Expo, “Making the Renaissance Real,” Nov. 11–15, 2007, Washington, DC. URL <http://www.ans.org/meetings/winter/>.

NUPPAC '07, Nov. 17–21, 2007, Luxor, Egypt. Contact: Prof. Dr. M.N.H. Comsan, Chairman of NUPPAC' 07, Egyptian Nuclear Physics Association (ENPA), 3 Ahmed Elzomor St., Elzohour District, Nasr City, Cairo, Postal Code 11787, Egypt (phone 202-4021018, fax 202-2876031, email [mnhcomsan@menanet.net](mailto:mnhcomsan@menanet.net) or [comsanmn@hotmail.com](mailto:comsanmn@hotmail.com)) url: [http://www.geocities.com/Athens/Library/7348/NUPPAC\\_07.html](http://www.geocities.com/Athens/Library/7348/NUPPAC_07.html).

## January 2008

2008 Midyear Health Physics Society meeting “Radiation-Generating Machines,” Jan. 27–30, 2008, Oakland, California. Information and registration can be found at <http://hpschapters.org/2008midyear>.

## February 2008

WM2008, Feb. 24–28, 2008, Phoenix, AZ. Contact: WM08 Program Advisory Committee Chairman Gary Benda (phone 803-345-2170 or email [gbenda@wmarizona.org](mailto:gbenda@wmarizona.org)) url [http://www.wmsym.org/html/wm\\_conference.cfm](http://www.wmsym.org/html/wm_conference.cfm).

## April 2008

11<sup>th</sup> International Conference on Radiation Shielding (ICRS-11) and the 15th Topical Meeting of the Radiation Protection and Shielding Division (RPSD-2008) of the American Nuclear Society, April 13–18, 2008, Callaway Gardens, Pine Mountain, Georgia. Contact: General Chair, Nolan Hertel, Georgia Institute of Technology (email [nolan.hertel@me.gatech.edu](mailto:nolan.hertel@me.gatech.edu)) or General Co-Chair, Pedro Vaz, ITN, Portugal (email [pedrovaz@itn.pt](mailto:pedrovaz@itn.pt)) url <http://icrs11.me.gatech.edu/index.htm>.

## June 2008

2<sup>nd</sup> International Conference on Current Problems in Nuclear Physics and Atomic Energy (NPAE-Kyiv2008), June 9–15, 2008, Kyiv, Ukraine. Contact: Dr. Vitali Yu. Denisov or Dr. Olena O. Gritzay, Institute for Nuclear Research, Prospect Nauky, 47, Kyiv, 03680, Ukraine (email [npae-kyiv2008@kinr.kiev.ua](mailto:npae-kyiv2008@kinr.kiev.ua)) url <http://www.kinr.kiev.ua/NPAE-Kyiv2008>.

## September 2008

PHYSOR'08, Sept. 14–19, 2008, Interlaken, Switzerland. Contact: [info@physor2008.ch](mailto:info@physor2008.ch), url <http://www.physor2008.ch/>.

## November 2008

13<sup>th</sup> International Conference on Neutron Capture Therapy, Nov. 3–7, 2008, Florence, Italy. Contact: ICNCT-13 Secretary General ([icnct-13@pv.infn.it](mailto:icnct-13@pv.infn.it)) url <http://www.pv.infn.it/icnct-13/>.