Radiation Safety Information Computational Center

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Nothing is ever lost by courtesy. It is the cheapest of the pleasures; costs nothing and conveys much. It pleases him who gives and him who receives, and thus, like mercy, is twice blessed.—Erastus Wiman

Changes to the Computer Code and Data Collection

PSR-542/MGA8

Lawrence Livermore National Laboratory, Livermore, California, through the Energy Science and Technology Software Center, Oak Ridge, Tennessee, contributed this code system to determine the relative abundances of plutonium and other actinide isotopes in different materials. Multiple Group Analysis (MGA) analyzes spectra taken of such samples using a 4096-channel germanium (Ge) gamma-ray spectrometer. The code can be run in a one or two detector mode. The first spectrum, which is required and must be taken at a gain of 0.075 Kev/channel with a high resolution planar detector, contains the 0-300Kev energy region. The second spectrum, which is optional, must be taken at a gain of 0.25 Kev/channel; it becomes important when analyzing high burnup samples (concentration of Pu-241 greater than one percent). Isotopic analysis precisions of one percent or better can be obtained, and no calibrations are required. The system also measures the abundances of U-235, U-238, Np-237, and Am-241. A special calibration option is available to perform a one-time peak-shape characterization when first using a new detector system.

MGA runs on personal computers and on DEC VAX series under VMS. The PC version was compiled with Microsoft Fortran-77. This release was tested by RSICC on Pentium PCs running the Microsoft® Windows XP™ and Vista™ operating systems with MS FORTRAN 5.1. The package is distributed on a CD containing documentation, Fortran 77 source code and executables for Windows and VAX VMS References: UCRL-LR-103220, Vol.1 and 2 (1990). Fortran 77; PC and DEC VAX series 8810 (P00542MNYCP00).

PSR-548/TALYS 1.0

TALYS 1.0 was contributed by the NRG - Nuclear Research and Consultancy Group, Petten, The Netherlands, and CEA Service de Physique et Techniques Nucleaires, Bruyeres-le-Chatel, France, through the OECD NEA Data Bank, Issy-les-Moulineaux, France. TALYS is a computer code system for the analysis and prediction of nuclear reactions. The basic objective behind its construction is the simulation of nuclear reactions that involve neutrons, photons, protons, deuterons, tritons, 3-He- and alpha-particles, in the 1 keV–200 MeV energy range and for target nuclides of mass 12 and heavier. Nuclear reactions can be evaluated from the unresolved resonance range up to intermediate energies. Many state-of-the-art nuclear models are included to cover all main reaction mechanisms encountered in light particle-induced nuclear reactions. TALYS provides a complete description of all reaction channels and observables. It is a versatile tool to analyze basic microscopic experiments and to generate nuclear data for applications. The code is new in the sense that it has recently been written completely from scratch using a consistent set of programming procedures with the exception of one very essential module, the coupled-channels code ECIS developed by Jacques Raynal. ECIS-06 was transformed into a subroutine and slightly modified to enable communication with the rest of TALYS. Nuclear models that are included can generally be categorized into optical, direct, pre-equilibrium, compound and fission models, all driven by a comprehensive database of nuclear structure and model parameters.

The authors tested TALYS only on PCs under Linux operating systems, but it is likely that it will also run under Windows with minor modifications. A Fortran compiler is required; no executables are included in the package. At RSICC, TALYS was tested under RedHat Enterprise Linux 4 with GNU (gcc) 3.4.6. The package is transmitted on one CD in a compressed tar file which contains documentation, source code, scripts, nuclear structure database and sample problems. Reference: User Manual (December 21, 2007). Fortran 95; PC Linux (P00548PC58600).

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.

Introductory and Advanced MCNP Visual Editor Training

Date 2009	Class	Location
Jan. 5–9	Introduction to MCNP using the MCNP/MCNPX Visual Editor	Seattle, WA
May 11–15	Introduction to MCNP using the MCNP/MCNPX Visual Editor	Las Vegas, NV
June 8–12	Introduction to MCNP using the MCNP/MCNPX Visual Editor	San Diego, CA
July 20–24	Advanced Visual Editor	Seattle, WA
September 21–25	Introduction to MCNP using the MCNP/MCNPX Visual Editor	Richland, WA
October 25–30	Introduction to MCNP using the MCNP/MCNPX Visual Editor	Reno, NV

Classes are taught using the most recent (beta) version of the Visual Editor Code. Beta versions will only be available to students who received the RSICC version 5 release. Bring proof of receipt (letter or email) 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

January 12-16, 2009	MCNP/MCNPX Intermediate Workshop	Las Vegas, NV
February 23-27, 2009	Introduction to MCNP5 and MCNPX	Los Alamos, NM
March 23-27, 2009	MCNP/MCNPX Intermediate Workshop	Paris, France
April 20-23, 2009	Advanced: Criticality	Los Alamos, NM
April 27-30, 2009	Advanced: Variance Reduction	Los Alamos, NM
May 18-22, 2009	MCNP/MCNPX Intermediate Workshop	US, Location TBD
June 1-5, 2009	Introduction to MCNP5 and MCNPX	Los Alamos, NM
June 8-12, 2009	Introduction to MCNP5 and MCNPX	Los Alamos, NM

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.

CONTE 2009

The Conference on Nuclear Training and Education, CONTE 2009, an American Nuclear Society Topical Meeting, will be held February 8–11, 2009, in Jacksonville, Florida. Titled “Education, Training & Workforce Development—The Global Path to the Nuclear Energy Future,” participants will learn about:

- current nuclear energy issues and challenges,
- new education & training techniques,
- workforce development strategies,
- emerging nuclear power options,
- benchmarking,

- knowledge retention, and
- successful methods to address these challenges.

Information about the conference will be posted on the webpage at http://www.ans.org/meetings/calendar.cgi?d=2-8-2009. The program co-chairs are Kent W. Hamlin (INPO, email HamlinKW@INPO.org) and Brian K. Hajek (Ohio State University, email hajek.1@osu.edu).

WM2009

WM2009 will be held March 1–5, 2009, in Phoenix, Arizona. This series of Waste Management (WM) Symposia is internationally recognized as the premier annual conference of the nuclear waste management industry. WM2009 will include papers describing research, development and operational experience over the complete spectrum of nuclear waste activities. Proposed topics are categorized into general tracks:

- Crosscutting policies, programs and technologies (CPPT),
- High-level radioactive wastes (HLW), spent nuclear fuel (SNF) and long-lived alpha/transuranic radioactive waste (TRU)
- Low-level waste (LLW), intermediate level waste (ILW), mixed waste (MW), NORM & TENORM
- Nuclear power plant (NPP) waste management (operational waste management and NPP spent nuclear fuel (SNF))
- Packaging and transportation (PAT)
- Decontamination & decommissioning (D&D)
- Environmental remediation (ER)
- Public communications, involvement, education and training (CE&T)
- Security, safety and safeguards (SS&S)
- Unassigned, late abstracts, and the non-paper poster session (MISC)

WM2009 also offers a student poster competition with a cash award for the best poster. No full abstract or paper is required for student posters. Submit a 50-word summary of your studies/research work and present it in the WM2009 Student Poster Competition on Monday, **March 2, 2009**. The deadline for submitting student posters is **Friday, January 30, 2009.** Every student presenting a student poster is eligible to receive **free registration and housing** for WM2009. Transportation support may also be available through donations to the Roy G. Post Foundation. Current news about the conference can be found at the website, http://www.wmsym.org/html/wm_conference.cfm.

Nuclear Safeguards and Non-Proliferation

The 5th ESARDA Course on Nuclear Safeguards and Non Proliferation will be held March 30–April 3, 2009, in Ispra, Italy. The course is organized by the European Safeguards Research & Development Association (ESARDA) and is hosted by the Nuclear Safeguards Unit, Joint Research Centre, Ispra, Italy.

The course is open to master's degree students, particularly nuclear engineering students, and to young professionals and international relations/law students. It complements nuclear engineering studies by including nuclear safeguards in the academic curriculum. The basic aim of the course is to stimulate students' interest in safeguards. The course addresses aspects of the efforts to create a global nuclear nonproliferation system and how this system works in practice: the Treaty on Nonproliferation of Nuclear Weapons (NPT), safeguards technology, and export control. Also regional settings, such as the Euratom Treaty, will be presented and discussed. The course deals in particular with the technical aspects and application of safeguards; i.e. how to implement safeguards principles and methodology within different nuclear facilities. The course will present an overview on inspection techniques, ranging from

neutron/gamma detectors, to design information verification, to environmental sampling, etc. The registration form can be found at http://esarda2.jrc.it/internal_activities/WC-MC/Web-Courses/5-contacts.html and must be completed and returned by December 31, 2008, to the NUSAF-Secretariat (email jrc-nusaf-secretariat@ec.europa.eu or fax +39 0332 78 9185). Additional information about the course is available at http://esarda2.jrc.it/internal_activities/WC-MC/Web-Courses/index.html.

Advances in Nuclear Fuel Management IV

Advances in Nuclear Fuel Management IV will be held April 12–15, 2009, in Hilton Head, South Carolina. The meeting is a forum for addressing a broad spectrum of front-end nuclear fuel management activities, within the context of reactor physics and fuel cycle economics. Topics will range from methods development and verification to design and implementation of new in-core fuel products and strategies.

A list of technical sessions follows.

- addressing practical design constraints on fuel management
- advanced fuel assembly and burnable absorber designs
- advanced fuel management and multi-dimensional burnup analysis
- advances in reactor stability
- automated and interactive fuel management design and optimization tools
- error quantification of core simulation capabilities
- experiences and advances in on-line core monitoring
- extended fuel cycles and economic analysis
- fuel and core design based on thorium cycles
- fuel cycle core design for advanced reactor concepts
- fuel temperature feedback for steady-state and transients
- generation of cross section libraries and whole core transport calculations
- generation-iv design concepts
- high enrichment >5wt% uo2 studies
- innovative core loading strategies and methods
- management, design, and operation issues of advanced reactor fuels
- model comparisons against measured reactor power data
- monte carlo-based depletion and full core analysis: new developments and issues
- mox utilization in reactors
- nodal and lattice physics methods
- nuclear data needs to enhance core simulation fidelity
- reactor-based plutonium disposition
- research reactor topics—fuel management practices
- simulation and study of advanced nuclear fuel cycles
- utilities experience in reload design and licensing
- utilization of zero power physics tests and core follow data to enhance core simulation fidelity
- validation of core analysis tools for fuel management

General Chair for the conference is John Siphers, Progress Energy (phone 919-546-4032, email john.siphers@pgnmail.com) and the Technical Program Co-chairs are Ivan Maldonado, University of Tennessee (phone 865-974-7562, email imaldona@utk.edu) and Atul Karve, Global Nuclear Fuel, (phone 910-675-5802, email atul.karve@gnf.com). Additional details are posted at the conference web site: http://anfm2009.org.

2009 International Conference on Advances in Mathematics, Computational Methods, and Reactor Physics

The 2009 International Conference on Advances in Mathematics, Computational Methods, and Reactor Physics will be held May 3–7, 2009, in Saratoga Springs, New York. The Conference will provide an international forum to present and discuss recent research in mathematical modeling and computing as applied to nuclear engineering and particle transport. This conference is part of a series of topical meetings organized by the Mathematics and Computation Division of the American Nuclear Society. The technical program will consist of plenary sessions, parallel oral presentation sessions, and poster sessions. There will also be one or more workshops.

Check the conference website http://local.ans.org/ne-ny/topical_2009_neny.html for general conference information. General chair of the conference is Ray Gamino (ray.g.gamino@lmco.com).

Operational Radiation Protection for Accelerators in Research and Medicine

Operational Radiation Protection for Accelerators in Research and Medicine will be held in Erice, Sicily (Italy), May 13–20, 2009, at the "Ettore Majorana Foundation and Centre for Scientific Culture" within the framework of the International School of Radiation Damage and Protection. The course is focused on operational radiation protection, including environmental aspects, safety systems, training and radioactive waste management at high-energy accelerators and hadron therapy facilities. Emphasis is given to all aspects of practical implementation of the principles of operational radiation protection at such facilities. The Course will provide a series of presentations given by acknowledged experts with practical experience in the field. There will be ample opportunity for in-depth discussions on current problems. Details can be found at the Webpage at http://www.cern.ch/radschool.

Radionuclide Therapy and Radiopharmaceutical Dosimetry

The 3rd International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry and Workshop on Alpha-Emitting Radionuclides in Therapy will convene June 13–17, 2009, in Toronto, Canada, in conjunction with the 2009 Society of Nuclear Medicine (SNM) Annual Meeting, which is being planned. This symposium follows the successful first (Helsinki 2004) and second (Athens 2006) symposiums. This 2009 RTRD Symposium will blend with SNM sessions in oncology, radiopharmaceutical chemistry, radiobiology and dosimetry. The workshop will highlight current progress in the use of alpha-emitters for cancer therapy, continuing a series of successful alpha-emitter workshops. Symposium topics will include:

- data collection and quantitative imaging,
- biodistribution and pharmacokinetics,
- clinical dosimetry and treatment planning,
- alpha emitters in cancer therapy,
- auger electron emitters,
- radiobiological studies, and
- therapy of skeletal metastases and bone pain palliation.

All announcements and mailings for the symposium will be electronic and by website postings. Those who wish to participate in the symposium must register with SNM to attend the Annual Meeting. Separate symposium registration will not be offered. Registration, housing, local arrangements, transportation, and other logistical arrangements will be handled by SNM. Local arrangement details will be available at a later date on the SNM website at: www.snm.org. A future announcement will provide

instructions for submitting abstracts. George Sgouros (gsgouros@jhmi.edu) is Vice-chair of the Organizing Committee and Michael Lassmann (Lassmann_M@klinik.uni-wuerzburg.de) is Chair of the Committee.

2009 ANS Annual Meeting

Advancing Nuclear Technology for a Greater Tomorrow is the theme for the 2009 ANS Annual Meeting which be held in Atlanta, Georgia, June 14–18. Summaries describing work that is new, significant, and relevant to the nuclear industry may be submitted beginning November 1 in response to the Call for Papers. 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. General Chair for the meeting is Jeffrey T. Gasser (Southern Nuclear Operating Company); the Technical Program Chair is Bojan Petrovic (Georgia Institute of Technology).

Training Course on Natural Circulation Phenomena and Modelling in Water Cooled Nuclear Power Plants

The San Piero a Grado Nuclear Research Group (GRNSPG) of the University of Pisa in cooperation with the International Atomic Energy Agency (IAEA), Department of Nuclear Energy, are jointly organizing the "Training Course on Natural Circulation Phenomena and Modelling in Water Cooled Nuclear Power Plants." The course will be held June 22–26, 2009, on the premises of the San Piero a Grado Nuclear Research Group (GRNSPG) in Via Livornese 1291, San Piero a Grado (Pisa), Italy.

Passive safety systems based on natural circulation are key to evolutionary and innovative water-cooled reactor designs. The education in this issue is of key importance for countries working in the next generation of LWR. The course will provide a transfer of experience and know-how from recognized experts in the natural circulation fields and will transmit information, results and expertise shared through various international activities in the field (i.e. IAEA CRPs and European Commission supported programmes). It will thus contribute to maintain and increase technical competence and to ensure the sustainable development of nuclear technology. Further information may be requested at the following email address: grnspg@ing.unipi.it or may be obtained from the home page: http://www.grnspg.ing.unipi.it/natural_circulation/ where information on the course, registration form and accommodation can also be found. The deadline for registration is **April 20, 2009**. Additional information may be obtained from Ms. Patricia Pla, San Piero a Grado Nuclear Research Group (GRNSPG), University of Pisa, Via Diotisalvi, 2, 56126 PISA (Italy) (phone + 39 050 2210 371, fax + 39 050 2210 384, email grnspg@ing.unipi.it) url http://www.grnspg.ing.unipi.it/natural_circulation/.

ICENES-2009

The 14th International Conference on Emerging Nuclear Energy Systems (ICENES-2009) will be held June 29–July 3, 2009, in Ericeira, Portugal. The main objective of the ICENES series is to provide an international forum for scientists, engineers, industry leaders, policy makers, decision makers and young professionals to present and discuss various advanced, innovative and non-conventional nuclear energy production systems. A new dimension of ICENES2009 will extend the forum to include innovative non-nuclear technologies, such as hydrogen energy, solar energy, deep space exploration, etc. A special new field in ICENES 2009 will be the discussion and proposals of new tools for a more efficient way to organize R&D in nuclear energy and related fields, and to boost international cooperation. ICENES2009 takes place in a special moment, at the dawn of a new era for nuclear energy,

marked by the nuclear energy "renaissance" and following a major step forward towards the development and implementation of nuclear fusion energy, with the recent decision to build ITER.

Conference topics include:

- advanced fission systems and fuel cycles,
- fusion energy systems,
- radiation protection & shielding,
- nuclear physics unusual applications,
- new nuclear medicine applications,
- nuclear and solar space power and propulsion,
- nuclear hydrogen production & the hydrogen economy,
- sustainability issues: society, energy, environment,
- energy policy: the nuclear and renewable mix, and
- R&D organization and cooperation: new tools for new challenges.

Papers on hydrogen, solar and other alternative energies as natural and mutual complements of nuclear energy in a sustainable development framework are strongly encouraged as are new proposals on how to focus R&D programs in a more efficient way. The deadline for abstract submission is January 15, 2009. For more information contact the Conference Secretariat at icenes2009@itn.pt or fax: 351 21 994 1995. Check the website, http://www.itn.pt/icenes2009/, frequently for new and updated information.

World Nuclear University

The World Nuclear University's annual Summer Institute (WNU-SI) will be held July 5–August 15, 2009, at Christ Church College, Oxford University. The WNU is a global partnership aimed at strengthening education and leadership in nuclear science and technology. The WNU partnership includes IAEA, World Association of Nuclear Operators (WANO), NEA-OECD, and the World Nuclear Association (WNA)—the WNU's four "Founding Supporters"—as well as leading institutions of nuclear learning around the world. The Summer Institute is a demanding six-week leadership development program for outstanding young professionals in the nuclear field with 90–100 "WNU Fellows" from over 30 nations participating. WNU Fellows are selected from hundreds of applicants. Information about the requirements for consideration and the application form may be found at http://www.world-nuclear-university.org/about.aspx?id=17696. The deadline for receipt of applications is **December 20, 2008**.

50th INMM Annual Meeting

The Institute of Nuclear Materials Management (INMM) will hold its 50th Annual Meeting July 12–16, 2009, in Tucson, Arizona. The Institute is a professional membership organization that promotes research and development in new concepts, approaches, techniques and equipment in the field of nuclear materials management (i.e., international safeguards, materials control and accountability, physical protection, nonproliferation and arms control, packaging and transportation, and waste management). The Call for Papers has been issued for papers in the following major topical areas:

- Policy, Regulations and Standards
- Methodologies and Best Practices
- Modeling and Analysis
- Technology and Development
- Systems and Applications
- Testing, Assessments and Lessons Learned
- Education, Training and Communication/Information Systems

- Counter Terrorism Measures and Responses
- Public and Homeland Security

Abstracts must be submitted by **February 1, 2009**. Details about submission and other information regarding the conference can be found at http://www.inmm.org/meetings/index.cfm. You may also contact INMM, 111 Deer Lake Road, Suite 100, Deerfield, IL 60015 (email inmm@inmm.org, phone 847-480-9573, fax: 847-480-928).

Radiation Shielding for Medical Installations

The Training Course on Radiation Shielding for Medical Installations (RSMI 2009) will be held July 19–21, 2009, in Ericeira, Portugal. This education and training initiative on shielding methodologies for medical imaging and therapy facilities will provide you with:

- The latest information on medical radiation shielding design from a rare collection of shielding experts and professionals who will be available to provide their special insights into this field, including practical design tips which cannot be found in any formal reports, and observed common shielding mistakes (some very serious) to be avoided. Included will be diagnostic x-ray imaging (conventional, interventional, CT, digital, etc.); nuclear medicine (including PET/CT), and the latest in radiotherapy shielding design (including IMRT, Cyberknife, Tomotherapy, neutrons, and unique solutions to space limitations). These experts include the authors of the latest NCRP shielding design recommendations from the USA (NCRP reports #147 and #151 on Medical X-ray Imaging and Radiation Therapy Shielding Design), as well as the authors of current European shielding guideline documents as described in the list of speakers on this site.
- Assess trends and needs in view of the rapid technological evolution in CT, PET, radiation therapy (IMRT, IGRT, and other emerging and advanced techniques) as well as in other medical applications of ionizing radiations.

A set of satellite meetings on specific radiation protection, radiation dosimetry and radiation shielding topics, as well as tutorials on topics of interest to the participants, will be organized around the meeting.

If you are a shielding designer (expert or otherwise), or an aspiring designer, this conference is one "not to be missed." Even the shielding experts on the program are looking forward to this rare opportunity to exchange ideas and shielding philosophies with each other, as well as with the attendees. It goes without saying that the charming atmosphere of Ericeira, a fishermen's village near Lisbon with Portuguese hospitality, will certainly contribute to make RSMI 2009 an outstanding event.

Bob Dixon and Pedro Vaz
on behalf of the organizers and lecturers

GLOBAL 2009

GLOBAL 2009 will be held in Paris, September 6–11, 2009. It will be the 9th in the series of world meetings held bi-annually on the nuclear fuel cycle (NFC) that began in 1993 in Seattle. The series has since been established as an international forum for experts to provide an overall review of the status and new trends of research applications and policies related to the nuclear fuel cycle (NFC). GLOBAL 2009 will highlight the technical challenges and successes involved in closing the NFC and recycling long lived nuclear waste. It will also be an excellent occasion to review and discuss social and regulatory aspects as well as national plans and international policies affecting the future of nuclear energy. This meeting will

provide a forum for the exchange of the newest ideas and developments related to the initiatives establishing an acceptable, reliable and universal international non proliferation regime.

The technical program will consist of invited plenary and focused in-depth technical sessions organized along specific areas of technical interests listed below.

- Front end of the fuel cycle
- Current spent nuclear fuel recycling
- Waste management technologies and strategies
- Concepts for transportation and interim storage of spent fuels and conditioned waste
- Nuclear waste repository developments
- Advanced technologies for fuel recycling including partitioning of specific radionuclides
- Advances in reactor cores design and in-core fuel management
- Transmutation systems for long lived radionuclides
- Developments in nuclear non proliferation technology, policy and implementation
- Sustainable fuel cycle options and nuclear material management
- Dismantling, decommissioning and material management
- Crosscutting issues, policies and programs

Abstracts may be submitted online by **December 15, 2008**. Instructions for submission may be found at http://www.inspi.ufl.edu/global2009/papers/submission.html. The contact for the conference is Sylvie Delaplace, SFEN, 5 rue des Morillons, F75015 PARIS (phone +33-(0)1-53-58-32-16, fax +33-(0)1-53-58-32-11, email global2009@sfen.fr). Stay up to date with current news about the conference at https://www.sfen.fr/index.php/plain_site/global_2009/general_scope_overview.

NCSD 2009

NCSD 2009, the topical meeting of the ANS Nuclear Criticality Safety Division, will be held September 13–17, 2009, in Richland, Washington. The theme for the meeting is *Realism, Robustness, and the Nuclear Renaissance*. Electronic submission of abstracts will open January 9, 2009, for work that falls within the following topics:

- Realism and Criticality Safety—Input data, Cross sections, Modeling, Accident scenarios
- Applications and Realism— Benchmark selection, Tsunami and other methods, Sub-critical Measurements, Burn-up credit applications
- Robustness in controls—Development of criticality controls, Requirements documents (DOE, NRC), Standards role, Implementation of criticality controls, Examples, International experience
- Ready for the Renaissance—Status and scope of GNEP, Criticality safety needs for the fuel cycle (enrichment, fabrication, transportation, storage and disposal), Harvesting existing benchmark data (fuel cycle and nuclear data), In-situ measurements, Criticality safety and engineering design, Use of computers in operations controls, People needs, training and education

Contact the Technical Program Chairman, David Erickson at David_G_Erickson@rl.gov if you have questions about the abstract requirements that might not be covered at the meeting website, http://www.ncsd2009.com/.

NEUDOS-11

The 11th Neutron and Ion Dosimetry Symposium (NEUDOS-11), hosted by the Laboratory for Accelerator-Based Sciences (iThemba LABS), will be held October 12–16, 2009, in Capetown, South

Africa. The Symposium is being held under the auspices of the European Dosimetry Group (EURADOS). All previous Symposia in the series, which began in 1972, have been held in Western Europe.

A full and diverse scientific program will be offered which will encompass the complete range of neutron and ion dosimetry topics. In addition, both oral and poster "young investigators" sessions will be held. At these sessions presentations on any topic related to the dosimetry of any radiation modality (i.e., not limited to neutron or ion dosimetry) can be presented.

Check the website, http://www.neudos11.tlabs.ac.za, frequently for new information. You may also contact Dr. D. Jones / Ms. N. Haasbroek, iThemba LABS, P O Box 722, Somerset West 7129, South Africa (phone +27 21 843 1259 / 1032, fax +27 21 843 3525, email Neudos11@tlabs.ac.za).

CALENDAR

November 2008

American Nuclear Society: 2008 Winter Meeting, "Nuclear Power—Ready, Steady, Go," Nov. 9–13, 2008, Reno, NV. Contact: http://www.ans.org/meetings/index.cgi?c=n.

LOWRAD 2008, Nov. 27–29, 2008 Lisbon, Portugal. Contact: Margarida Goulart de Medeiros (phone +351 21 994 6347, fax +351 21 994 1995), Octávia Monteiro Gil (phone +351 21 994 6344, fax +351 21 994 1995), or Secretariat, Luisa Oliveira (email lowrad2008@itn.pt), Nuclear and Technological Institute Department of Radiological Protection and Nuclear Safety Estrada Nacional 10, 2686 - 953 Sacavém, Portugal. url http://www.lowrad2008.itn.pt/index.html.

February 2009

CONTE 2009, Feb. 8–11, 2009, Jacksonville, FL. Contact: Kent W Hamlin (INPO, email HamlinKW@INPO.org) and Brian K. Hajek (Ohio State University, email hajek.1@osu.edu) url http://www.ans.org/meetings/calendar.cgi?d=2-8-2009.

March 2009

WM2009, March 1–5, 2009, Phoenix, Arizona. Contact: WMS Administration at 1-520-696-0399 or email at papers@wmarizona.org, url http://www.wmsym.org/html/wm_conference.cfm.

5th ESARDA Course on Nuclear Safeguards and Non Proliferation, March 30–April 3, 2009, Ispra, Italy. Contact: NUSAF-Secretariat (email jrc-nusaf-secretariat@ec.europa.eu or fax +39 0332 78 9185) url http://esarda2.jrc.it/internal_activities/WC-MC/Web-Courses/index.html.

April 2009

Advances in Nuclear Fuel Management IV, April 12–15, 2009, Hilton Head, SC. Contact: General Chair John Siphers (phone 919-546-4032, email john.siphers@pgnmail.com), or Technical Program Co-chairs Ivan Maldonado (phone 865-974-7562, email imaldona@utk.edu) and Atul Karve (phone 910-675-5802, email atul.karve@gnf.com) url http://anfm2009.org.

May 2009

2009 International Conference on Advances in Mathematics, Computational Methods, and Reactor Physics, May 3–7, 2009, Saratoga Springs, NY. Contact: Ray Gamino (ray.g.gamino@lmco.com) url http://local.ans.org/ne-ny/topical_2009_neny.html.

Operational Radiation Protection for Accelerators in Research and Medicine, May 13–20, 2009, Sicily (Italy). Contact: http://www.cern.ch/radschool.

June 2009

3rd International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry and Workshop on Alpha-Emitting Radionuclides in Therapy, June 13–17, 2009, Toronto, Canada. Contact: George Sgouros (gsgouros@jhmi.edu) or Michael Lassmann (Lassmann_M@klinik.uni-wuerzburg.de) url www.snm.org.

2009 ANS Annual Meeting, "Advancing Nuclear Technology for a Greater Tomorrow," June 14–18, 2009, Atlanta, GA. Contact: http://www.ans.org/goto/nad.cgi?id=1220677200-20.

Training Course on Natural Circulation Phenomena and Modelling in Water Cooled Nuclear Power Plants, June 22–26, 2009, Pisa, Italy. Contact: Ms. Patricia Pla, San Piero a Grado Nuclear Research Group (GRNSPG), University of Pisa, Via Diotisalvi, 2, 56126 PISA (Italy) (phone + 39 050 2210 371, fax + 39 050 2210 384, email grnspg@ing.unipi.it) url http://www.grnspg.ing.unipi.it/natural_circulation/.

ICENES-2009, June 29–July 3, 2009, Ericeira, Portugal. Contact: Conference Secretariat at icenes2009@itn.pt (fax: 351 21 994 1995) url http://www.itn.pt/icenes2009/.

July 2009

World Nuclear University Summer Institute (WNU-SI) July 5–August 15, 2009, Christ Church College, Oxford University. Contact: WNU Coordinating Centre, Carlton House, 22a St. James's Square, London SW1Y 4JH, United Kingdom (email wnu-applications@world-nuclear-university.org, fax +44 (0) 20 7839 1501) url http://www.world-nuclear-university.org/about.aspx?id=17696.

50th INMM Annual Meeting, July 12–16, 2009, Tucson, Arizona. Contact: INMM, 111 Deer Lake Road, Suite 100, Deerfield, IL 60015 (email inmm@inmm.org, phone 847-480-9573, fax: 847-480-928) url http://www.inmm.org.

Radiation Shielding in Medical Installations 2009 (RSM2009), July 19–21, 2009, Ericeira, Portugal. Contact: rsmi2009@itn.pt (phone (+351) 21-994 6292, fax (+351) 21-994 1995) url http://www.rsmi2009.itn.pt/contact.html.

September 2009

GLOBAL 2009, Sept. 6–11, 2009, Paris. Contact: Sylvie Delaplace, SFEN, 5 rue des Morillons, F75015 Paris (phone +33-(0)1-53-58-32-16, fax +33-(0)1-53-58-32-11, email global2009@sfen.fr) url https://www.sfen.fr/index.php/plain_site/global_2009/general_scope_overview.

NCSD 2009, Sept. 13–17, 2009, Richland, Washington. Contact: Technical Program Chairman, David Erickson at David_G_Erickson@rl.gov, url http://www.ncsd2009.com/.

October 2009

NEUDOS-11, October 12–16, 2009, Capetown, South Africa. Contact: Dr. D. Jones / Ms. N. Haasbroek, iThemba LABS, P O Box 722, Somerset West 7129, South Africa (phone +27 21 843 1259 / 1032, fax +27 21 843 3525, email Neudos11@tlabs.ac.za) url http://www.neudos11.tlabs.ac.za.