# **Radiation Safety Information Computational Center**



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No. 588 May 2014

Science has never drummed up quite as effective a tranquilizing agent as a sunny spring day. ~W. Earl Hall.

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### MESSAGE FROM THE DIRECTOR

RSICC is pleased to announce that we will be waiving the cost recovery fee for all requests from customers at U.S. universities. In addition, RSICC will waive the fee for all requests for archive and peripheral (PSR) codes for all U.S. citizens and legal permanent residents that are physically located in the U.S. The improvements in RSICC's processing and database systems along with the continued support of our sponsors have made this waiver possible. The waiver of the fees for these codes and individuals is contingent upon the continued support of our sponsors. Although unlikely, should RSICC need to re-institute the cost recovery fee for any U.S. universities, we will make an announcement in our monthly newsletter.

Students and faculty are reminded that students must provide a course number, course name, and complete description for each request. The appropriate course number for dissertation and/or thesis hours should be provided by graduate students that are requesting software for their research. If course information is not applicable, this needs to be stated in the end-use request clarifying that the package is to be used in the conduct of research. In such cases, the student must provide the contact information for their advisor. Requests that do not include complete information will not be processed.

RSICC remains committed to providing exceptional service to our customers and strives to implement methods to reduce our costs and pass those savings along to our customers and sponsors. RSICC is also very thankful to its sponsors that enable us to provide our services to the domestic and international nuclear communities.

# REQUEST PROCESSING FOR STUDENTS AND VISITING FACULTY AT THE DOE NATIONAL LABORATORIES

In order to expedite the process for the review and determination of requests from students and faculty members that will be working at the Department of Energy national laboratories, such customers will be able to submit a request to RSICC prior to their arrival at the laboratory as long as the following conditions are met.

- 1. The customer must provide the following in the comment section of their request:
  - a. The name of the laboratory point-of-contact.
  - b. The start date for their assignment at the laboratory.
- 2. The customer must provide a laboratory address in the request application.
- 3. The customer must use an official laboratory e-mail address in the request application.
- 4. The end-use statement must include the relevant information regarding the work that will be performed at the laboratory.
- 5. The customer must contact RSICC using their laboratory e-mail address on or after their start date notifying RSICC that they have begun work at the laboratory. The customer must include the request number in the subject line of their message to enable quick coordination of the request and review determination.

Upon notification that the customer has started their assignment at the laboratory, RSICC will send the package or instructions on how to download the package from RSICC. These conditions have been established and granted by our regulators in order to permit RSICC to better serve our customers.

# CHANGES TO THE RSICC CODE AND DATA COLLECTION

The following packages have been added to the RSICC catalog for those individuals that may be interested.

### **DLC-270/TSL-ACE/20130**

Departamento de Ingenieria Nuclear, Escuela Tecnica Superior de Ingenieros Industriales, 28006 Madrid, Spain through the OECD Nuclear Energy Agency Data Bank, Issy-les-Moulineaux, France, has contributed TSL-ACE/2013, thermal neutron scattering cross section data libraries, processed in ACE format to be used with MCNP.

This library was generated with NJOY-99.364 nuclear data processing system. All inputs used in the processing are provided. The files have been technically tested using who methods: an AmBe neutron source surrounded with materials and shielding experiments from the SINBAD database.

Number of groups: Continuous energy.

Processed Libraries: ENDF/B-VI.8, ENDF/B-VII.0, ENDF/B-VII.1, INDL-TSL, JEFF-3.1, JEFF-3.1.1, JEFF-3.1.2, JENDL-4.0, JENDL-4.0u

#### Nuclides:

- ENDF/B-VI.8: H in H2O, paraH, orthoH, H in ZrH, D in D2O, paraD, orthoD, Be metal, Be in BeO, graphite, liquid CH4, solid CH4, H in CH2, benzine, Zr in ZrH.
- ENDF/B-VII.0: H in H2O, paraH, orthoH, H in ZrH, D in D2O, paraD, orthoD, Be metal, Be in BeO, graphite, liquid CH4, solid CH4, H in CH2, benzine, O in BeO, U in UO2, Al, Fe, Zr in HZr, O in UO2.
- ENDF/B-VII.1: H in H2O, paraH, orthoH, H in ZrH, D in D2O, paraD, orthoD, Be metal, Be in BeO, graphite, liquid CH4, solid CH4, H in CH2, benzine, O in BeO, SiO2, U in UO2, Al, Fe, Zr in HZr, O in UO2.
- INDL-TSL: H in H2O, paraH, orthoH, H in ZrH, H in TiH2, H in YH2, H in CeH2, D in D2O, paraD, orthoD, graphite.
- JEFF-3.1.X: H in H2O, H in ZrH, H in CaH2, D in D2O, Be metal, graphite, H in CH2, Mg, Ca in CaH2.

• JENDL-4.0(u):H in H2O, paraH, orthoH, H in ZrH, D in D2O, paraD, orthoD, Be metal, Be in BeO, graphite, liquid CH4, solid CH4, H in CH2, benzine, Zr in ZrH.

Temperatures: The libraries have been processed using the same temperatures as the provided in the evaluated files. Each temperature is given in a separated ACE file. See the report for more details.

TSL-ACE/2013 is distributed on one CD containing documentation, reference material and data. TEXT,PDF (D00270MNYCP00, NEADB ID: NEA-1883/01)

### PSR-564/GEF

GEF, A GEneral description of the Fission process, was contributed by Le Centre d'Etudes Nucléaires de Bordeaux Gradignan (CENBG) Gradignan, France through the Nuclear Energy Agency Data Bank, Issyles-Moulineaux, France. GEF is a computer code for the simulation of the nuclear fission process. The GEF code calculates pre-neutron and post-neutron fission-fragment nuclide yields, angular-momentum distributions, isomeric yields, prompt-neutron yields and prompt-neutron spectra, prompt-gamma spectra and several other quantities for a wide range of fissioning nuclei from polonium to seaborgium in spontaneous fission and neutron-induced fission. The result refers to first-chance fission. Output is provided as tables and as values of fission observables on an event-by-event basis. The code is packaged in a single zip file containing source code, precompiled executables for Windows and Linux systems and documentation. BASIC; PC Windows and Linux (P00564PCX8603, NEADB ID: NEA-1864/06).

# SCIENCE EDUCATION PROGRAMS AT OAK RIDGE NATIONAL LABORATORY

Looking for an internship or post-graduate opportunity at Oak Ridge National Laboratory? The Science Education Programs at Oak Ridge National Laboratory provide paid opportunities for undergraduates, grad students, recent graduates, and faculty to participate in high-quality research alongside world-class scientists to solve real-world problems. Opportunities are available for internships and co-ops, research appointments, and sabbaticals.

You can access all available opportunities through the website at <a href="http://www.orau.org/ornl">http://www.orau.org/ornl</a>. The Talent and Opportunity System allows you to create a profile, and then answer only 5 or 6 questions for each program or job posting for which you apply.

All levels of participants from undergraduates to faculty are encouraged to publish research papers with their mentors. Please browse through the Research Profiles on the different participants and their research experiences at the right hand side of the bottom of the web site listed above. Also, there is a video of research participants at ORNL sharing their thoughts on how access to world-class research facilities and staff has catapulted their careers in science and technology. You can find it on YouTube at <a href="http://ow.ly/2EQLz">http://ow.ly/2EQLz</a>.

# CONFERENCES, TRAINING COURSES, SYMPOSIA

RSICC attempts to keep its customers 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 <a href="walkersy@ornl.gov">walkersy@ornl.gov</a> with "conferences" in the subject line by the 20<sup>th</sup> of each month. Please include the announcement in its native format as an attachment to the message. Please provide a website address for the event if one is available.

Every attempt is made to ensure that the links provided in the Conference and Calendar sections of this newsletter are correct; however, if the links become unavailable, please call the point of contact for the event.

### **CONFERENCES**



# 9<sup>th</sup> International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications

The International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications (IRRMA) will be held **July 6-11, 2014** at the Universidad Politécnica de Valencia, Valencia, Spain. This triennial event is organized with the purpose of bringing together scientists and engineers from around the world who share an interest in radiation and radioisotope measurement applications.

For update-to-date information about his conference, visit their website at <a href="http://irrma-9.webs.upv.es/index.html">http://irrma-9.webs.upv.es/index.html</a>.



## 2014 IEEE Nuclear and Space Radiation Effects Conference

The 2014 IEEE Nuclear and Space Radiation Effects Conference will be **July 14-18, 2014** at the Marriott Rive Gauche, Paris, France. The conference features a technical program consisting of eight to ten technical sessions of contributed papers describing the latest observations in radiation effects, a Short Course on radiation effects offered on July 14, a Radiation Effects Data Workshop, and an Industrial Exhibit.

For update-to-date information about his conference, visit their website at http://www.nsrec.com/.



# 19th Pacific Basin Nuclear Conference

The 19<sup>th</sup> Pacific Basin Nuclear Conference will be held **August 24-28, 2014** at the Hyatt Regency Hotel, Vancouver, British Columbia, Canada. The conference will showcase the advancement of nuclear technology in power generation, health science, and environmental stewardship. Challenges facing nuclear technology will be discussed as well as future development. The conference features ten Technical Tracks, covering all aspects of nuclear technology.

For up-to-date information about this conference, visit their website at www.pbnc2014.org.









# 8<sup>th</sup> International Conference on High Levels of Natural Radiation and Radon Areas

The 8<sup>th</sup> International Conference on High Levels of Natural Radiation and Radon Areas (8 ICHLNRRA) will be held in Prague, Czech Republic from **September 1-5, 2014**. It will be organized by the International Committee on High levels of Natural Radiation and Radon Areas (ICHLNRRA) in cooperation with the Czech Technical University through the Department of Dosimetry and Applications of Ionizing Radiation. High level natural background radiation and radon areas in many parts of the world provide ample opportunities to researchers to measure low dose chronic environmental radiation exposure indoors and outdoors and investigate their effects on human population as well as non-human species. In this context, some International Conferences on High Levels of Natural Radiation and Radon Areas have been held in the past in Brazil (1977), India (1981), Iran (1990), China (1996), Germany (2000), Japan (2004) and India (2010). In extending our invitation, we request all the scientists and researchers as well as graduate students involved in the field of high background radiation areas and related fields of dosimetry and public dose and health assessment to actively participate in this conference and share their wealth of information/findings and put forth their suggestions to tackle the unresolved issues.

For up-to-date information about this conference, visit their website at <a href="http://www.ichlnrra2014prague.cz/">http://www.ichlnrra2014prague.cz/</a>



# 23<sup>rd</sup> International Conference Nuclear Energy for New Europe

In 2014, the Nuclear Society of Slovenia will organize the 23rd International Conference Nuclear Energy for New Europe. The conference will be held in the attractive maritime resort of Portorož, Slovenia, during **September 8-11, 2014**.

The conference is a traditional annual meeting of professionals from nuclear research and educational institutions, nuclear vendors, utilities and regulatory bodies. It attracts around 200 participants from more than 20 countries. The topics discussed are general and include reactor physics, thermal hydraulics, probabilistic safety assessment, severe accidents, nuclear fusion, nuclear power plant operation, nuclear materials, waste management and new reactor designs.

For up-to-date information about this conference, visit their website at www.nss.si/nene2014/.



# 18th Topical Meeting of the ANS Radiation Protection & Shielding Division

The 18<sup>th</sup> Topical Meeting of the Radiation Protection & Shielding Division of ANS will be held **September 14-18, 2014** at the Hilton Downtown, Knoxville, Tennessee USA. The 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.

For up-to-date information about this conference and the Call for Papers, visit their website at <a href="https://www.rpsd2014.org">www.rpsd2014.org</a>.



# PHYSOR 2014 International Conference

The ANS Reactor Physics Topical Meeting will be held at The Westin Miyako, Kyoto, Japan **September 28 – October 3, 2014.** The technical program will include timely and relevant special topics. Students will be actively involved in all technical events and activities. Exciting workshops and technical tours will be also offered.

For up-to-date information about this conference, visit their website at http://physor2014.org/#.

# 4<sup>th</sup> International Conference on Nuclear & Renewable Energy Resources (NURER2014)

This event will consist of a knowledge-based and comprehensive scientific program, featuring oral and poster presentations with possible commercial exhibitions from energy and publishing sectors. Thus, it will provide a good opportunity to become familiar with the most recent R&D tools in innovative nuclear and renewable energy systems, as well as looking at cutting-edge ideas on a sound scientific-technical basis. The aim is to combine the intellectual debates on the leading practical applications on nuclear and non-nuclear technologies, such as hydrogen energy, wind energy, solar concentrating systems, PVs, power systems, alternative energy tools, deep space exploration, etc. This conference will take place **October 26-29, 2014** in Antalya, Turkey.

For up-to-date information about this conference, visit their website at <a href="https://www.nurer2014.org">www.nurer2014.org</a>.

# The 17<sup>th</sup> International Conference on Emerging Nuclear Energy Systems (ICENES2015)

This conference will consist of an informative and comprehensive scientific program, featuring oral and poster presentations and a commercial exhibition. This will provide a unique opportunity to become familiar with the most recent advancements in innovative nuclear energy systems, as well as looking at "bold" and "unthinkable" ideas on a sound scientific-technical basis. The forum will also be open to intellectual debate leading to practical applications around innovative non-nuclear technologies, such as hydrogen energy, solar energy, deep space exploration and others. This conference will take place **May 10-14, 2015** inclusive, in Antalya, Turkey.

For up-to-date information about this conference, visit their website at http://www.icenes2015.org.

### TRAINING COURSES



### **LANL MCNP6 Class Schedule**

Date	Course Name and Description	Location	Cost
June 2-6,	Introduction to MCNP6	Los	\$1,900 or
2014	Non-US citizens must register 2014-03-31	Alamos, NM	\$1,600*
	Min 8 students – Max 15		
	Mon 12:30 – Fri 12:00		
August 4-8,	Criticality Calculations with MCNP6	Los	\$1,900 or
2014	Non-US citizens must register 2014-06-02	Alamos, NM	\$1,600*
	Min 8 students – Max 15		
	Mon 12:30 – Fri 12:00		
August 11-	Variance Reduction with MCNP6	Los	\$1,900 or
15, 2014	Non-US citizens must register 2014-06-09	Alamos, NM	\$1,600*
	Min 8 students – Max 15		
	Mon 12:30 – Fri 12:00		
August 18-	Introduction to MCNP6	Los	\$1,900 or
22, 2014	Non-US citizens must register 2014-06-16	Alamos, NM	\$1,600*
	Min 8 students – Max 15		
	Mon 12:30 – Fri 12:00		
October 20-	Introduction to MCNP6	Los	\$1,900 or
24, 2014	Non-US citizens must register 2014-08-18	Alamos, NM	\$1,600*
	Min 8 students – Max 15		
	Mon 12:30 – Fri 12:00		
October 27-	Unstructured Mesh with AttilaMCNP	Los	\$1,000 or
29, 2014	Non-US citizens must register 2014-08-25	Alamos, NM	\$800*
	Min 8 students – Max 15		
	Mon 12:30 – Wed 4:30		

<sup>\*</sup>Early payment discount: A discount of \$300 per student is given when the registration payment is received in full at least 4 weeks prior to the start of class.

<u>Introductory classes</u> are for those 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 specifications), Variance Reduction Techniques, Statistical Analysis, Criticality, Plotting of Geometry and Tallies, and Neutron / Photon / Electron Physics.

<u>Intermediate workshops</u> cover the entire spectrum of MCNP/MCNPX, but proceed at a much faster pace and are more in-depth than the introductory classes. These workshops are open to new users; the first day of class is a review of basics. However, the intermediate workshops are targeted toward more experienced users and are more problem solving than lecture classes. Intermediate workshops feature

flexible course content, skip topics of least interest to the participants, and provide significantly more depth than introductory classes.

Advanced classes- Variance Reduction and Criticality 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 participants. Classes on specific topics are offered when there is sufficient interest.

Note: While MCNP supports a number of platforms, LANL class computers are Windows based.

More information about the MCNP courses at LANL is available on their website at <a href="https://laws.lanl.gov/vhosts/mcnp.lanl.gov/classes/classinformation.shtml">https://laws.lanl.gov/vhosts/mcnp.lanl.gov/classes/classinformation.shtml</a>.

### MCNP6, Penelope, and Visual Editor Training

Classes are taught using the most recent (beta) version of the Visual Editor Code. All class attendees must have a valid MCNP/MCNPX RSICC license. Bring proof of receipt (letter or email) to the class.

Visual Editor Classes 2014 & 2015			
June 30-July 4, 2014	Intermediate Visual MCNP	Barcelona, Spain	
July 14-18, 2014	Beginning Visual MCNP	Anaheim, CA	
August 11-15, 2014	Beginning Visual MCNP	Orlando, FL	
August 18-22, 2014	Intermediate Visual MCNP	Orlando, FL	
September 2-5, 2014	Beginning Visual MCNP (Four day format for Holiday)	Montreal, Canada	
September 8-12, 2014	Intermediate Visual MCNP	Montreal, Canada	
September 22-26, 2014	Beginning Visual MCNP	Myrtle Beach, SC	
September 29-	Intermediate Visual MCNP	Myrtle Beach, SC	
October 3, 2014			
October 20-24, 2014	Beginning Visual MCNP	Barcelona, Spain	
October 27-31, 2014	Intermediate Visual MCNP	Barcelona, Spain	
December 1-5, 2014	Beginning Visual MCNP	Vienna, Austria	
December 8-12, 2014	Intermediate Visual MCNP	Vienna, Austria	
March 16-20, 2015	Beginning Visual MCNP	Paris, France	

June 15-19, 2015	Beginning Visual MCNP	Prague, Czech Republic
October 5-9, 2015	Beginning Visual MCNP	Paris, France

The introductory workshops combine teaching on MCNP basics and how to create MCNP input files using the Visual Editor. The intermediate Visual Editor workshops focus on more advanced topics such as tallies and variance reduction using the Visual Editor.

Exercises will focus on creating input files and visualizing output data with the Visual Editor. Attendees are encouraged to bring their own input files for viewing and modifying in the Visual Editor; this is particularly important for the intermediate workshop.

The course description and registration information can be found at <a href="http://www.mcnpvised.com/index.html">http://www.mcnpvised.com/index.html</a>.

MCNP6 Workshops 2014			
June 23-27, 2014	MCNP6 Intermediate Workshop	Barcelona, Spain	
July 21-25, 2014	MCNP6 Intermediate Workshop	Buenos Aires, Argentina	
August 25-29, 2014	MCNP6 Intermediate Workshop	Washington, DC	
November 24-28, 2014	MCNP6 Intermediate Workshop	Paris, France	

MCNP6 experts from Los Alamos will lead in the teaching of these workshops on the capabilities of MCNP6.

Intermediate Workshops cover the entire spectrum of MCNP6 but proceed at a much faster pace and are more in-depth than Introductory Classes. These workshops are open to new users; the first day is a review of basics. However, the intermediate workshops are targeted toward more experienced users and are more problem solving than lecture classes. Intermediate workshops feature flexible course content, skip topics of least interest to the participants, and provide significantly more depth than introductory classes.

The list of workshops is tentative, as workshops may be added, removed, or modified throughout the year, depending on user interests. Workshops with fewer than 12 registrants on the early registration date are subject to cancellation or rescheduling.

In order to process non-U.S. citizens by the class date, non-U.S. citizens must register at least 6 weeks prior to the start of the training class. All non-U.S. citizens who reside in countries listed in the U.S. Code of Federal Regulations, Title 10, Part 810.8, are required to register at least 8 weeks prior to the start of the training class. These participants must be processed by the DOE and should not make travel arrangements until approval from DOE has been obtained.

Additional information about the courses can be found at the website, <a href="http://www.mcnpvised.com/train.html">http://www.mcnpvised.com/train.html</a>.

To register send an email to Randy Schwarz at <u>randyschwarz@mcnpvised.com</u>, indicating the workshop of interest to you.



### **SCALE Training Courses – Summer 2014**

All attendees MUST be licensed SCALE 6.1 users. SCALE 6.1 is available from <u>ORNL/RSICC</u> in the USA, the <u>OECD/NEA Data Bank</u> in France, and the <u>RIST/NUCIS</u> in Japan. All currently scheduled SCALE Courses are described below.

Date	Course Name and Description	Location	Cost
August 4-8,	SCALE Criticality Safety Calculations Course	Oak Ridge,	\$2000*
2014	Introductory through advanced criticality	TN	
	calculations using KENO V.a and KENO-VI;		
	resonance self-shielding techniques.		
August 11-	SCALE Sensitivity and Uncertainty Calculations	Oak Ridge,	\$2000*
15, 2014	Course TSUNAMI: 1D, 2D, and 3D keff	TN	
	sensitivity/uncertainty analysis; 2D generalized		
	sensitivity analysis for lattice physics; reactivity		
	sensitivity analysis; advanced S/U methods for code		
	and data validation using trending analysis and data		
	assimilation (data adjustment) techniques; keff		
	burnup credit validation.		
August 18-	SCALE Lattice Physics and Depletion Course 2D	Oak Ridge,	\$2000*
22, 2014	lattice physics calculations; 1D, 2D, and 3D depletion	TN	
	calculations; resonance self-shielding techniques		
	including Monte Carlo Dancoff factors for non-		
	uniform lattices; generation of libraries for		
	ORIGEN-ARP	0.1.0:1	#1000t
August 25-	SCALE/ORIGEN Standalone Fuel Depletion,	Oak Ridge,	\$1800*
28, 2014	Activation, and Source Term Analysis Course	TN	
	Isotopic depletion, activation analysis, and source		
	term characterization using ORIGEN/OrigenArp		

<sup>\*</sup>Full-time university students can register at a reduced rate.\_Both professional and student registration fees are discounted \$200 for each course over one.

**FOREIGN NATIONAL VISITORS TO ORNL** - Payment MUST be received at least one week prior to attending the training course. All foreign national visitors must register 40 days before the start date of the training course they plan to attend.

For more information regarding this class, visit their website at <a href="http://scale.ornl.gov/training">http://scale.ornl.gov/training</a> 2014 summer.shtml



## **NEA Nuclear Energy Agency**

Class sizes are limited and courses may be cancelled if minimum enrollment is not obtained one month prior to course. Course fees paid are refundable up to one month before each class.

Please note that all attendees must be registered users.

Date	Class	Course Content	Price	Location
1-4 July 2014	Electron-Photon Transport Modeling with PENELOPE-2014 Physics, Code Structure and Operation	Course description To register, click here	600 Euros	Barcelona, Spain
24-28 November 2014	MCNP6 intermediate	Course description To register, click here	2000 Euros	Paris, France

<sup>\*</sup> The fee includes the training course, luncheons and coffee breaks.

Contact: programs@oecd-nea.org

## **SYMPOSIA**



# The 15<sup>th</sup> International Symposium on Reactor Dosimetry (ISRD-15)

The 15<sup>th</sup> International Symposium on Reactor Dosimetry (ISRD-15) will take place from May 18-23, 2014 at the Hotel Aquabella in Aix-en-Provence, France. The aim of the symposium is to bring together the communities involved in research, development and applications related to reactor dosimetry.

The symposium is jointly organized by the European Working Group on Reactor Dosimetry (EWGRD) and the Committee E10 on Nuclear Technology and Applications of the American Society for Testing and Materials (ASTM).

For more information regarding this meeting, visit their website at http://reactordosimetry.org/index.html.

## **2014 CALENDAR**

#### May

- 3<sup>rd</sup> International Conference on Physics and Technology of Reactors and Applications (PHYTRA3), May 12-14, 2014, Tetouan, Morocco. For up-to-date information about this conference, visit their website at <a href="http://www.gmtr-association.com/phytra3/">http://www.gmtr-association.com/phytra3/</a>.
- International Symposium on Reactor Dosimetry (ISRD-15), May 18-23, 2014, Aix-en-Provence, France. For up-to-date information about this conference, visit their website at <a href="http://reactordosimetry.org/index.html">http://reactordosimetry.org/index.html</a>.
- 41<sup>st</sup> IEEE International Conference on Plasma Science (ICOPS) and the 20th International Conference on High Power Particle Beams (BEAMS), May 25-29, 2014, Washington, DC. For upto-date information about this conference, visit their website at <a href="http://www.ece.unm.edu/icops-beams2014/">http://www.ece.unm.edu/icops-beams2014/</a>.

### <u>June</u>

**2014 ANS Annual Meeting, Nuclear Challenges: Technologies and Analysis**, June 15-19, 2014, Reno, Nevada. For up-to-date information about this conference, visit their website at: <a href="http://www.ans.org/meetings/c">http://www.ans.org/meetings/c</a> 1.

#### <u>July</u>

- 9<sup>th</sup> International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications, July 6-11, 2014, Valencia, Spain. For up-to-date information about this conference, visit their website at http://irrma-9.webs.upv.es/index.html.
- **INMM 55<sup>th</sup> Annual Meeting**, July 20-24, 2014, Atlanta, Georgia. For up-to-date information about this conference, visit their website at http://www.inmm.org//AM/Template.cfm?Section=Home.
- **2014 IEEE Nuclear and Space Radiation Effects Conference**, July 14-18, 2014, Paris France. For upto-date information about this conference, visit their website at <a href="http://www.nsrec.com/">http://www.nsrec.com/</a>.

### August

**19**<sup>th</sup> **Pacific Basin Nuclear Conference**, August 24-28, 2014, Vancouver, British Columbia, Canada. For up-to-date information about this conference, visit their website at <a href="https://www.pbnc2014.org">www.pbnc2014.org</a>.

#### September

**Topical Meeting of the ANS Radiation Protection and Shielding Division (RPSD 2014)**, September 14-18, 2014, Knoxville, TN. For up-to-date information about this conference and the Call for Papers, visit their website at <a href="https://www.rpsd2014.org">www.rpsd2014.org</a>.

#### October

**PHYSOR 2014,** September 28 – October 3, 2014, Kyoto, Japan. For up-to-date information about this conference, visit their website at <a href="http://physor2014.org/#">http://physor2014.org/#</a>.

## <u>November</u>

**2014 ANS Winter Meeting and Nuclear Technology Expo, Nuclear – The Foundation of Clean Energy**, November 9-13, 2014, Anaheim, CA. For up-to-date information about this conference, visit their website at <a href="http://www.ans.org/meetings/c\_1">http://www.ans.org/meetings/c\_1</a>.

### **December**

WINS 2014 Workshop on Elastic and Inelastic Neutron Scattering, December 3-5, 2014, Dresden, Germany. For up-to-date information about this conference, visit their website at <a href="http://www.hzdr.de/db/Cms?pNid=3221">http://www.hzdr.de/db/Cms?pNid=3221</a>.