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# Radiation Safety Information Computational Center

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No. 634

March 2018

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*To succeed in life, you need three things: a wishbone, a backbone and a funny bone.*

*-- Reba McEntire*

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## **CHANGES TO THE RSICC CODE AND DATA COLLECTION**

There are no updates to the RSICC catalog for those individuals that may be interested.

### **END USE STATEMENT**

Customers are strongly encouraged to provide full and complete information regarding the intended end use of the software being requested. End use statements that specify that the code is for research, training or educational activities are not sufficient. RSICC’s regulators need to know explicitly for what purpose you intend to use the codes and detail needs to be provided. Requests that lack sufficient detail will be rejected.

### **REGISTRATION REQUIREMENTS**

RSICC does not permit individuals to “pre-register” or “pre-order” software for use at a temporary or alternate location. The single user license and export control agreements are specific to the individual’s end use and the location at which the software will be used. During the registration process, individuals are required to provide the name of the institution at which they will use the software, an institutional mailing address and an institutional e-mail address. As an example, students that work at a location other than their university are required to update their registration with RSICC and submit a new request for any software that they intend to use after they have begun work at the new location.

### **SINGLE-USER LICENSE AGREEMENT REVISED**

The single-user license agreement has been revised to address concerns regarding changes in end-use and employment changes of individuals that have received packages from RSICC. In some instances, individuals obtain approvals from our Federal regulators for use of software packages for very specific purposes or while employed or associated with specific organizations. To address this concern, the

single-user license agreement has been modified to indicate that the license is only valid for the end-use as stated in the Licensee's request and only while associated with the organization under which the request is being made. After February 1, 2015, the individual's single-user license would no longer be valid if they change their end-use or are no longer associated with the organization for which they obtained the original license. In these cases, the individual would need to submit a new request to RSICC for the package for the new end-use or the new affiliation.

## **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 <http://www.ornl.gov>. 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 <http://ow.ly/2EQLz>.

## **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 [walkersy@ornl.gov](mailto:walkersy@ornl.gov) with “**Conferences for RSICC Newsletter**” in the subject line by the 15<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

### RAMP 2018 UAE Users Group Meeting



The United States Nuclear Regulatory Commission (NRC) is hosting a Radiation Protection Computer Code Analysis and Maintenance Program (RAMP) Spring User Group Meeting which will be held **March 25-29, 2018** at the Landmark Tower - Al Markaziyah West, in Abu Dhabi, United Arab Emirates. The Federal Authority of Nuclear Regulation (FANR) is co-hosting this meeting with the NRC. Training and discussion sessions are planned for the following computer codes: RASCAL, VARSKIN, RADTRAD, and TurboFRMAC. In addition, morning primer sessions are going to feature presentations on the NRC's REIRS Database, and the on the computer codes Radiological Toolbox and HABIT. Tentative social activities are also scheduled, including an optional users group dinner. Additional information is available on the RAMP website: <https://www.usnrc-ramp.com/content/2018-international-ramp-users-group-meeting-march-25-29-2018>

### PHYSOR 2018



The American Nuclear Society Reactor Physics Division Topical Meeting, PHYSOR 2018, will be held at the Marriott Casa Magna Hotel, Cancun, Mexico, on **April 22 - 26, 2018**. PHYSOR 2018 will be a venue focusing on both modeling/simulation and experimental aspects of reactor physics, where common aspects and requirements of these two focus areas will be explored. The meeting will also include plenary discussions, technical tours, workshops, and sessions in other topics relevant to the physics of nuclear reactor systems.

Papers are solicited in the following topics:

1. Reactor Analysis Methods
2. Deterministic Transport Theory
3. Monte Carlo Methods
4. Fuel Cycle and Nuclear Criticality Safety
5. Reactor Physics Experiments and Nuclear Data
6. Reactor Concepts and Designs
7. Reactor Operation and Safety
8. Transient and Safety Analysis
9. Education, Research Reactors and Spallation Sources
10. Radiation Applications and Nuclear Safeguards

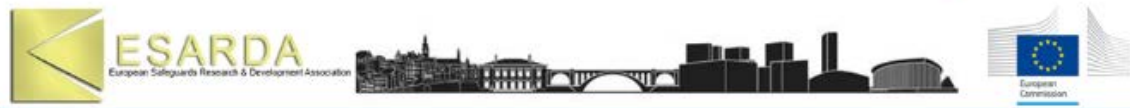
For more information about PHYSOR 2018, please visit <http://www.physor2018.mx/>.



## BEPU 2018

The Best Estimate Plus Uncertainty International Conference will be held **May 13-19, 2018**, in Lucca, Italy. The objective of the Conference is to provide a forum to exchange experience and views among professionals in the nuclear industry in the development and use of Best Estimate Plus Uncertainty (BEPU) methods in safety analyses and design of nuclear installations. Please see the website for more information [www.nineeng.com/bepu](http://www.nineeng.com/bepu).

## International Workshop on Numerical Modelling of NDA Instrumentation and Methods for Nuclear Safeguards



## ESARDA Workshop on Numerical Modelling

The ESARDA Non-Destructive Assay (NDA) Working Group is organizing an international workshop on the topics of computer simulation applied to the modelling of NDA instrumentation and methods for nuclear safeguards applications. It will be held **May 17-18, 2018** in Luxembourg. The two-day event aims to cover a broad range of topics and present a unique opportunity for the safeguards

community interested in recent advances and in lessons learned from practical cases. The information about the event can be found at

[http://www.nusaset.org/index.php?option=com\\_content&view=article&id=878&Itemid=470](http://www.nusaset.org/index.php?option=com_content&view=article&id=878&Itemid=470).



## PHYTRA4

The Fourth International Conference on Physics and Technology of Reactors and Applications will be held **September 17-19, 2018**, in Marrakech, Morocco. This conference will be organized by the Moroccan Association for Nuclear Engineering and Reactor Technology (GMTR) with the collaboration of the National Centre for Energy, Sciences and Nuclear Techniques (CNESTEN) and the Moroccan Agency for Nuclear and Radiological Safety and Security (AMSSNuR) after the resounding success which the previous editions had met. Please see their website for more information at <http://phytra4.gmtr.ma/>.



# APPLICABILITY OF RADIATION-RESPONSE MODELS TO LOW DOSE PROTECTION STANDARDS

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AMERICAN NUCLEAR SOCIETY & HEALTH PHYSICS SOCIETY  
JOINT TOPICAL - SEPTEMBER 30 - OCTOBER 3, 2018  
TRI-CITIES, WASHINGTON

## **American Nuclear Society & Health Physics Society Joint Topical**

The American Nuclear Society and Health Physics Society are co-sponsoring a scientific conference on “Radiation Response Models to Low Dose Protection Standards,” in Pasco, Washington, **September 30 - October 3, 2018**. For additional information contact Alan Waltar, conference chair, [alan.waltar@gmail.com](mailto:alan.waltar@gmail.com), or Darrell Fisher, technical program co-chair, at [darrell.fisher@versantphysics.com](mailto:darrell.fisher@versantphysics.com).



## **NURER 2018**

The 6<sup>th</sup> International Conference on Nuclear and Renewable Energy Resources (NURER2018) will be held **September 30 - October 3, 2018**, in Juju, Korea. This is recognized as one of the major international conferences for the exchange of information on scientific, engineering, and other technical aspects of innovative nuclear and renewable energy science and technology. For more details on this conference, please visit their website at <http://nurer2018.org>.

## TRAINING COURSES



### LANL MCNP6 Class Schedule

Website: <https://laws.lanl.gov/vhosts/mcnp.lanl.gov/classes/classinformation.shtml>

Apr 2-6, 2018 Los Alamos, NM	<a href="#">Introduction to MCNP6</a> ***FULL*** Non-US citizens must register by 2018-01-08   Mon 10:00 - Fri 12:00	\$1800 or \$1500*
Apr 10-12, 2018 Los Alamos, NM	<a href="#">Using NJOY to Create MCNP® ACE Files &amp; Visualize Nuclear Data</a> Non-US citizens must register by 2018-01-15   Tues 10:00 - Fri 5:00	\$1500 or \$1200*
Apr 30 - May 4, 2018 Los Alamos, NM	<a href="#">Practical MCNP® for the Health Physicist, Medical Physicist, and Radiological Engineer</a> ***FULL*** The above link goes to the LANL Radiation Protection website. See the RP website for class information & registration.	\$1800
May 15-18, 2018 Los Alamos, NM	<a href="#">Unstructured Mesh with Attila4MC</a> Non-US citizens must register by 2018-02-19   Tues 12:30 - Fri 4:30	\$1500 or \$1200*
June 4-8, 2018 Los Alamos, NM	<a href="#">Introduction to MCNP6</a> Non-US citizens must register by 2018-03-12   Mon 10:00 - Fri 12:00	\$1800 or \$1500*
Aug 6-10, 2018 Los Alamos, NM	<a href="#">Criticality Calculations with MCNP6</a> Non-US citizens must register by 2018-05-14   Mon 10:00 - Fri 12:00	\$1800 or \$1500*
Aug 13-17, 2018	<a href="#">Introduction to MCNP6</a> Non-US citizens must register by 2018-05-21   Mon 10:00 - Fri 12:00	\$1800 or \$1500*
Aug 20-24, 2018	<a href="#">Variance Reduction with MCNP6</a> Non-US citizens must register by 2018-05-28   Mon 10:00 - Fri 12:00	\$1800 or \$1500*
Nov 27-29, 2018 Los Alamos, NM	<a href="#">Using NJOY to Create MCNP® ACE Files &amp; Visualize Nuclear Data</a> Non-US citizens must register by 2018-09-03   Tues 10:00 - Fri 5:00	\$1500 or \$1200*
Dec 3-7, 2018 Los Alamos, NM	<a href="#">Introduction to MCNP6</a> Non-US citizens must register by 2018-09-10   Mon 10:00 - Fri 12:00	\$1800 or \$1500*



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## **MCNP6 Training**

For more information, see the website: [http://mcnpvised.com/train\\_mcnp.html](http://mcnpvised.com/train_mcnp.html)

<b>Current Classes</b>			
<b>(tuition for all US classes is \$2800 with an early payment discount of \$300)</b>			
<b>Date</b> (Click Date for Info)	<b>Class</b>	<b>Course Content</b>	<b>Location</b>
<b>September 10-14, 2018</b>	<b>Intermediate MCNP6 Workshop</b>		<b>Seattle, WA</b>
<b>October 22- 26, 2018</b>	<b>MCNP6 Intermediate Workshop</b>	<b>To see an outline for the course, <a href="#">Click Here.</a></b>	<b>Paris, France</b>

## Beginning/Advanced Visual Editor Training

For more information, see the website: <http://mcnpvised.com/train.html>

Click Date for Info)	<p style="text-align: center;"><b>Workshop</b></p> <p style="text-align: center;">(40 Cont. Ed. credits through American Academy of Health Physics. <a href="#">Click here for AAHP Site.</a> Class number is 2008-00-026 for Vised classes and 2011-00-022 for MCNPX Team Workshops)</p>	Level of Difficulty	Workshop Content	Location
<a href="#">April 9-13, 2018</a>	<b>Beginning Visual Editor.</b>	LEVEL 	<a href="#">Detailed Description</a>	Las Vegas, NV
<a href="#">April 16-20, 2018</a>	<b>Intermediate MCNP6 Using Nucwiz</b>	LEVEL 	<a href="#">Detailed Description</a>	Las Vegas, NV
<a href="#">April 23-27, 2018</a>	<b>Advanced Visual Editor with Applications in Mesh Tallies and Variance Reduction.</b>	LEVEL 	<a href="#">Detailed Description</a>	Las Vegas, NV
<a href="#">June 4-8, 2018</a>	<b>Intermediate MCNP6 Using Nucwiz</b>	LEVEL 	<a href="#">Detailed Description</a>	Prague, Czech Republic
<a href="#">June 11-15, 2018</a>	<b>Advanced Visual Editor with Applications in Mesh Tallies and Variance Reduction.</b>	LEVEL 	<a href="#">Detailed Description</a>	Prague, Czech Republic
July 30 - August 3, 2018	<b>Advanced MCNP® Training with Applications for Nuclear Reactor Decommissioning</b>	LEVEL 	Custom for Ulsan National Institute of Science and Tech.	Ulsan, South Korea
September 17-21, 2018	<b>Intermediate MCNP6 Using Nucwiz</b>	LEVEL 	<a href="#">Detailed Description</a>	Richland, WA

September 24-28, 2018	Beginning Visual Editor	LEVEL 1	<a href="#">Detailed Description</a>	Las Vegas, NV
October 1- 5, 2018	Advanced Visual Editor with Applications in Mesh Tallies and Variance Reduction.	LEVEL 4	<a href="#">Detailed Description</a>	Las Vegas, NV
October 15-19, 2018	Beginning Visual Editor. <b>The NEA handles registration for this workshop.</b>	LEVEL 1	<a href="#">Detailed Description</a>	Paris, France

## **Safety Analysis Report for Packaging (SARP)**

Shielding/Criticality Safety Generalist and Analyst Courses

Developed and Conducted by Oak Ridge National Laboratory

Radioactive Material Package Shielding Evaluation and Nuclear Criticality Safety  
Evaluation Training

The U.S. Department of Energy (DOE) Packaging Certification Program (PCP), Office of Packaging and Transportation, is offering Safety Analysis Report for Packaging (SARP) shielding and nuclear criticality safety (NCS) courses for SARP generalists and analysts.

The **SARP Generalist Course** will be held at the National Transportation Research Center, Oak Ridge National Laboratory, Oak Ridge, TN, **June 4 -8, 2018**. This course is designed for project managers, supervisors, NCS/shielding subject matter experts (SME), or SMEs in non-NCS/shielding technical areas (e.g., structural, thermal, package design, etc.) who need to better understand how the NCS/shielding analyses fit in the broader SARP documentation. Specifically, the Generalist Course provides an overview of the regulations and guidelines for the criticality and shielding analysis for a SARP, and the course shows how the NCS/shielding chapters integrate with the other parts of the SARP. Students in the Generalist Course will review an actual SARP document after the course material is presented to emphasize the key elements of the shielding and criticality analyses. The registration cost for all students is \$2000. Those interested can register for the course at the following website, <https://utconferences.eventsair.com/safety-analysis-report-for-packaging-sarp-shielding-criticality-safety-generalist-course/sarp/Site/Register>.

The **SARP Analyst Course** is scheduled for **September 17 - 21, 2018** at the National Transportation Research Center, Oak Ridge National Laboratory, Oak Ridge, TN. This course will provide detailed training on the radioactive material package shielding analyses and NCS evaluation fundamentals needed by analysts/practitioners (i.e., safety analysts and/or technical reviewers) to prepare and/or review technical analyses for the SARP documentation. The Analyst Course also provides an overview of regulations and guidelines in addition to detailed in-class exercises associated with the package shielding and NCS analyses. Regarding the in-class exercises, analysis teams will be faced with “staged” SARP examples in which important decision processes in the generation of a SARP will be demonstrated and discussed. The registration cost for all students is \$2000. Information regarding the course is available at the following website, <https://public.ornl.gov/conferences/sarp/index.shtml>. A registration link will be available by March 2018.

Please contact the ORNL SARP Course Point-of-Contact if you have questions about the courses. Douglas G. Bowen, Oak Ridge National Laboratory, bowendg@ornl.gov,(865) 576-0315.

## SYMPOSIA

### 2018 CALENDAR

#### March

**NRC Regulatory Information Conference (RIC)**, March 13-15, 2018, North Bethesda, Maryland.  
Website: <https://www.nrc.gov/public-involve/conference-symposia/ric/>.

#### June

**2018 American Nuclear Society (ANS) Annual Meeting**, June 17-21, 2018, Philadelphia, Pennsylvania. Website: [http://www.ans.org/meetings/c\\_1](http://www.ans.org/meetings/c_1).

#### July

**HPS 63<sup>rd</sup> Annual Meeting**, July 15-19, 2018, Cleveland, Ohio. Website:  
<http://hps.org/meetings/meeting46.html>.

**26<sup>th</sup> International Conference on Nuclear Engineering - ICONE**, July 22-26, 2018, London, England. Website: <http://www.asme.org/events/icone>.

#### August

**20<sup>th</sup> Topical Meeting of the Radiation Protection & Shielding Division of ANS (RPSD-2018)**, August 26-31, 2018, Santa Fe, New Mexico. Website: <http://rpsd2018.ans.org>.

#### September

**Pacific Basin Nuclear Conference**, September 30-October 5, 2018, San Francisco, California. Website: <http://pbnc.ans.org>.

#### November

**IEEE Nuclear Science Symposium**, November 11-17, 2018, Sydney, Australia. Website:  
<http://www.nssmic.org/2018/>.

**2018 American Nuclear Society (ANS) Winter Meeting**, November 11-15, 2018, Orlando, Florida.  
Website: [http://www.ans.org/meetings/c\\_1](http://www.ans.org/meetings/c_1).

### 2019 CALENDAR

#### June

**2019 American Nuclear Society (ANS) Annual Meeting**, June 9-13, 2019, Minneapolis, Minnesota.  
Website: [http://www.ans.org/meetings/c\\_1](http://www.ans.org/meetings/c_1).