## **Radiation Safety Information Computational Center**



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It is a socialist idea that making profits is a vice. I consider the real vice is making losses.—Winston Churchill

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## CHANGES TO THE RSICC CODE AND DATA COLLECTION

#### **CCC-755/CINDER 1.05**

This code system for actinide transmutation calculations is a collaborative effort involving Los Alamos National Laboratory,<sup>\*</sup> Oak Ridge National Laboratory,<sup>†</sup> Argonne National Laboratory,<sup>‡</sup> and the Paul Scherrer Institut.<sup>§</sup>

The CINDER 1.05 package includes the CINDER'90 code Version 7.4.2, ACTIVATION 1.0, GAMMA\_SOURCE 1.0. CINDER'90 is used to calculate the inventory of nuclides in an irradiated material. Utilizing a self-contained nuclear data library, CINDER'90 calculates the atom density (atoms per unit volume) and activity density (curies per unit volume) of each and every nuclide present at a specified time. Though always providing a nuclide inventory, its functional identity depends upon the application (burnup, activation, transmutation nuclide inventory, and nuclide evolution). The ACTIVATION script automates coupling between CINDER'90 and MCNPX and format source definition for MCNPX. The GAMMA\_SOURCE script prepares decay gamma source descriptions for subsequent MCNPX calculations. The CINDER'90 library of 63-group cross sections describes 3400 nuclides in the range  $1 \le Z \le 103$ . The code requires a multi-group neutron flux for En  $\le 20$  MeV and nuclide production rates for reactions at higher neutron energies or for additional particles.

CINDER'90 runs on Personal Computers under Linux or Windows. Working versions of PERL and MCNPX (Version 2.40 or 2.50) are required and are not included in this distribution. With the CINDER

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<sup>&</sup>lt;sup>†</sup>Oak Ridge, Tennessee

<sup>&</sup>lt;sup>‡</sup> Argonne, Illinois

<sup>§</sup> Villigen, Switzerland

package are distributed two tarballs of code extensions to be applied on official distributions of the MCNPX code versions 2.4.0 or 2.5.0. Note that some CINDER'90 functionality (for criticality calculations only) is included in MCNPX 2.6.0.

Executables created with the gfortran compiler (within the MINGW cross-compiler environment) are distributed for Windows. The Unix distribution file includes fortran source code and makefiles set up to use gfortran. Testing was done with version 4.1.2 of gfortran on Linux, as well as recent versions of the PGI and Intel Fortran compilers on Linux and Windows. No Linux executables are included.

The package is transmitted on one CD-rom in a Unix tar file and a Windows installation file. Included are installation instructions, Users Guide, fortran source for Linux, Windows executables, and test cases. References: LA-UR-07-8412 (December 2007, Version 07.4.2 updated March 2008), ORNL/TM-2008/031 (August 18, 2008), and PSI TM-85-08-02 (September 2008). Fortran 90/95 and Perl; Linux, and Windows XP (C00755/PC586/00).

#### CCC-759/TITAN 1.15

The University of Florida, Gainesville, contributed this three-dimensional deterministic radiation transport code system. TITAN is a deterministic radiation transport simulation code in 3-D Cartesian geometry. TITAN is originally designed to solve radiation transport problems for medical physics applications, where large air regions are very common. TITAN can also be used in nuclear engineering applications for both shielding and criticality calculations. It has been benchmarked on a number of OECD/NEA benchmark problems. The PENMSHXP mesh generator to build TITAN or PENTRAN input decks is included in the package.

TITAN numerically solves the time-independent first order transport equation (Linear Boltzmann Equation) using a hybrid discrete ordinate (Sn) and ray-tracing method. Two transport solvers, an Sn solver and a ray-tracing solver, are integrated in the TITAN code. Both solvers work on the coarse mesh <u>level</u> in Cartesian geometry.

TITAN source code is not included; the code is distributed only as pre-compiled binary executable file. The included serial-mode executables for TITAN and MENMSHXP were created by the developers for these systems:

- Linux (static 64-bit compiled with PGI Fortran 90/95)
- Windows 2000/XP/Vista (32 bit serial Single Processor) with Intel Visual Fortran compiler

The package is transmitted on one CD-rom in a ZIP file which contains manuals, TITAN and PENMSHXP executables, PENMSHXP source code, and sample problem input and output. References: TITAN Manual (2009) and PENMSHXP Manual (2008). Fortran 90/95 with fortran 2003 extensions; Personal Computers (C00759/PC586/00).

## 1st ANNUAL WNU SCHOOL ON RADIOISOTOPES

The World Nuclear University (WNU) is sponsoring the 1st Annual WNU School on Radioisotopes, May 15–June 4, 2010, in Seoul, Republic of Korea. The school is hosted by the Korea Atomic Energy Research Institute with special support from the International Atomic Energy Agency and the World Council on Isotopes.

The WNU School on Radioisotopes (RI School) is aimed at young professionals involved in managerial roles related to radioisotope (RI) application and production. Selected applicants will develop a broad understanding of the wide range of RI applications, RI production methods, and the main challenges encountered by practitioners in this field. Participants will also enjoy the opportunity to develop a worldwide network of contacts of unique value to their current and long-term careers.

The RI School's intensive three-week programme features:

- Lectures by prominent experts in radioisotope application and production
- Small-group and team-building work, where participants tackle case studies and develop proposals for resolving RI-related issues
- Technical visits to RI-related sites including the Korea Atomic Energy Research Institute (KAERI), Korea Institute of Nuclear Safety (KINS), and the Korea Institute of Radiological and Medical Sciences (KIRAMS).

The curriculum covers topics relevant to radioisotope applications:

- Operations, including the production chain for open and sealed sources, quality assurance and control, packaging and transport of radioactive materials, radiation metrology and dosimetry, waste management and decommissioning
- Current and future applications, including nuclear techniques in human health, industrial process management, food and agriculture, environmental protection, and life sciences
- Regulatory frameworks and infrastructure, including the international safety regime for radioisotopes and the international radiological protection system
- Key contexts, including the socio-economics of RI programmes, public communications, and the role of research reactors and accelerators.

The RI School is open each year to 80 professionals from companies, governments, research institutes and regulatory authorities expected to play key roles in the field. An application form can be obtained from the WNU website (www.world-nuclear-university.org) and should be emailed to the WNU Coordinating Centre no later than **October 30**, **2009**.

Each successful applicant who completes the RI School receives a WNU Certificate and such professional credit as may be awarded by that person's own employer.

Applicants must provide evidence of meeting all the following requirements:

- (1) A Master's degree or equivalent (exceptions to be considered on the basis of unusual merit)
- (2) Knowledge of the basic principles of nuclear science
- (3) Demonstrated academic and professional excellence
- (4) Proficiency in English, the working language of the RI School.

In the selection of participants, relevant work experience will also weigh heavily as a positive factor.

The cost of participation is a fixed tuition fee of €5,000 plus travel to and from Seoul, Korea. The tuition fee will cover all coursework, technical tours, lodging and meals. While attending the RI School, participants will occupy individual rooms, and enjoy a diverse programme of social events and excursions. Family members may accompany participants for an additional expense.

In general, participants' employers are expected to cover tuition and travel costs. However, some applicants from developing countries should be eligible for assistance from the IAEA and Korean government.

Selection of applicants will be made through a consultation process, led by the WNU Coordinating Centre. The goal is a synergistic, internationally diverse mix of top professionals. The application process will place weight on each applicant's demonstrated leadership potential.

Inaugurated in 2003 and encompassing key institutions of nuclear learning in more than 30 nations, the WNU partnership has four "Founding Supporters": the International Atomic Energy Agency, the OECD's Nuclear Energy Agency, the World Nuclear Association and the World Association of Nuclear Operators.

The mission of the World Nuclear University is to enhance education and leadership in the peaceful applications of nuclear science and technology. A non-profit corporation, the WNU pursues this mission through programmes organized by the WNU Coordinating Centre in London. These cooperative activities are designed to harness the strengths of partnership members in pursuit of shared purposes.

## **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 <u>riceaf@ornl.gov</u> 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.

## TRAINING

Date 2009	Class	Location
November 2–6	Introductory Visual Editor	Las Vegas, NV
Date 2010	Class	Location
January 4–8	MCNP5/MCNPX Intermediate Workshop	Las Vegas, NV
January 18–22	Introduction to MCNPX using the MCNPX Visual Editor	Seattle, WA
March 29–April 2	MCNP5/MCNPX Intermediate Workshop	Paris, France
April 26–30	Introduction to MCNPX using the MCNPX Visual Editor	Las Vegas, NV
May 16–20	Advanced Visual Editor	Orlando, FL
May 24–28	MCNP5/MCNPX Intermediate Workshop	Orlando, FL
June 21–23	CAD to MCNP	Seattle, WA
July 12–16	Introduction to MCNPX using the MCNPX Visual Editor	Anaheim, CA
August 2–4	Visualization	Seattle, WA
August 16–20	MCNP5/MCNPX Intermediate Workshop	Seattle, WA
September 13–17	Introduction to MCNPX using the MCNPX Visual Editor	Myrtle Beach, SC
September 20–24	MCNP5/MCNPX Intermediate Workshop	Virginia Beach, VA
October 25–29	MCNP5/MCNPX Intermediate Workshop	Spain
November 15–19	Introduction to MCNPX using the MCNPX Visual Editor	Las Vegas, NV

#### **Introductory and Advanced MCNP 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.

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 <a href="http://www.mcnpvised.com/index.html">http://www.mcnpvised.com/index.html</a>.

2010 Classes					
Date	Class	Location			
January 4–8	Intermediate MCNPX +	Las Vegas, NV			
	Homeland Security				
March 29–April 2	Intermediate MCNP5/MCNPX	Paris, France			
May 24–28	Intermediate MCNPX	Orlando, FL			
August 16–20	Intermediate MCNPX	Seattle, WA			
September 20–24	Intermediate MCNPX	Virginia Beach, VA			
October 25–29	Intermediate MCNP5/MCNPX	Barcelona, Spain			

#### **MCNPX** Training

The MCNPX team at Los Alamos National Laboratory offers interactive workshops for training users in the capabilities of MCNPX. Three levels are offered: introductory (for users with 0-1 year of experience), intermediate (for users with 1-3 years of experience), and advanced (for users with more than 3 years of experience). The list of workshops below is somewhat tentative, as workshops may be added, removed, or modified throughout the year, depending on user interests.

Cost of the U.S. workshops is \$2,300 US with an early registration discount of \$300 (i.e., if paid 30 days before the scheduled workshop). This fee includes applicable Gross Receipt taxes. Workshops with fewer than 15 registrants on the early registration date are subject to cancellation or rescheduling.

In order to process non-US citizens by the class date, non-US citizens shall register at least 6 weeks prior to the start of the training class. All non-US 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, <u>http://mcnpx.lanl.gov/</u>. To register send an email to <u>Randy Schwarz</u>, indicating the workshop of interest to you.

## PRACTICAL MCNP FOR THE HP, MEDICAL PHYSICIST, AND RAD ENGINEER

**DATE:** March 22-26, 2010

FEE: \$1,800 per person

**PLACE:** RIO Grande Radiological Physics Group, LLC, 2820 Broadbent Parkway NE, Suite E&F, Albuquerque, New Mexico 87107 USA (www.riophysics.com)

Monte Carlo type calculations are ideally suited to solving a variety of problems in radiation protection and dosimetry. The Los Alamos MCNP<sup>TM</sup> code is a general and powerful Monte Carlo transport code for photons, neutrons, and electrons, and can be safely described as the "industry standard." This course is aimed at the HP, medical physicist, and rad engineer with no prior experience with Monte Carlo techniques. The focus is almost entirely on the application of MCNP<sup>TM</sup> to solve a variety of practical problems in radiation shielding and dosimetry. The intent is to "jump start" the student toward using MCNP<sup>TM</sup> productively. With a little practice and study of the examples, many will find they are able to solve problems that have, in the past, been out of reach. The lead instructor will be Dick

Olsher, who developed the course at the Los Alamos National Laboratory, and has taught this course since its inception in 1996.

**Course content:** Extensive interactive practice sessions are conducted on a personal computer. Topics will include an overview of the MCNP<sup>TM</sup> code and the Monte Carlo method, input file preparation, geometry, source definition, standard MCNP tallies, interpretation of the output file, exposure and dose rate calculations, radiation shielding, photon skyshine, detector simulation and dosimetry. Students will be provided with a class manual and a CD containing all of the practice problems. This course has been granted 32 Continuing Education Credits by the AAHP (2005-00-003), and 4.5 CM points by the American Board of Industrial Hygiene.

**Payment:** Register online (<u>www.riophysics.com</u>) or via mail. Major credit cards (VISA, MC & AMEX) are accepted. Inquiries regarding registration should be made to David Hunter, 505-341-4994; fax: 505-332-9320; e-mail: <u>david@riophysics.com</u>. Technical questions should directed to Dick Olsher, e-mail: <u>dick@blackdahlia.com</u>. Foreign students must obtain a licensed copy of the MCNP code prior to attending class.

Date	Title	Description
October 19-23, 2009	KENO-VI/MAVRIC	KENO-VI: Criticality safety using the generalized geometry version of KENO
		MAVRIC: 3-D automated variance reduction for deep- penetration and complex shielding problems
October 26-30, 2009	SCALE Lattice Physics and Depletion Course	ORIGEN-ARP: Isotopic depletion/decay and source terms using latest version of ORIGEN
	(OKIGEN-AKI/IKIION)	TRITON: 2-D reactor physics analysis using NEWT
November 3-6, 2009	TSUNAMI Sensitivity/ Uncertainty Tools Course (Experienced KENO users only)	1-D and 3-D sensitivity/uncertainty analysis using XSDRNPM and KENO V.a
November 9-13, 2009	KENO V.a	Criticality safety with the most widely used version of KENO

## **SCALE Training Courses at ORNL**

The registration fee is \$2300 for each course. A discount of \$200 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 6 users. All foreign national visitors must register a minimum of 40 days prior to the start date of the training course they plan to attend. Course descriptions may be found at <a href="http://www.ornl.gov/sci/scale/course\_description.htm">http://www.ornl.gov/sci/scale/course\_description.htm</a>.

## World Nuclear University Summer Institute

The World Nuclear University's annual Summer Institute (WNU-SI) will be held July 3–August 14, 2010, 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 some 35 nations participating. WNU Fellows are selected from hundreds of applicants. Information about the requirements for consideration and the application form may be found at <u>http://www.world-nuclear-university.org/about.aspx?id=17696</u>. The deadline for receipt of applications is **November 27, 2009**.

#### **CONFERENCES**

#### 1st International Nuclear & Renewable Energy Conference

The 1st International Nuclear & Renewable Energy Conference (INREC'10) will be held March 21–24, 2010, in Amman, Jordan. It is the first in a planned series of biannual meetings focusing on the practical aspects of nuclear energy. The meeting covers the synergetic integration of nuclear engineering with electrical power production, coupling to existing power grids and the design of smart grid systems, to intelligent instrumentation and control, and monitoring of processes relevant to radiation safety and nuclear safeguards. Research work addressing alternate energy forms are also welcome.

The call for papers has been issued for work related to the following main topics:

- Nuclear reactor technology
- Education & training
- Policy studies & issues
- Nuclear radiation and shielding
- Nuclear physics
- Nuclear power in developing countries
- Enabling technologies for nuclear applications
- Renewable energy
- Water, hydrogen and energy storage

Authors should follow the guidelines posted in the symposium website: <u>http://inrec10.inrec-</u> <u>conf.org/default.aspx?id=submission</u>. Submitted papers will be peer-reviewed. Accepted and presented papers will be published in the proceedings of the INREC'10 conference. A poster session will also be organized to report the latest research/project findings.

You will find the necessary conference information at the website, http://inrec10.inrec-conf.org/.

# 2010 Topical in Radiation Protection and Shielding (RPSD), Isotopes & Radiation (IRD), and Biology and Medicine (BMD)

The Radiation Protection and Shielding Division, the Isotopes and Radiation Division, and the Biology and Medicine Division of ANS are joining to organize the 2010 Topical in Radiation Protection and Shielding (RPSD), Isotopes & Radiation (IRD), and Biology and Medicine (BMD), April 19–23, 2010, in Las Vegas, Nevada. Check the conference website, <u>http://local.ans.org/nv/jtm2010.html</u>, often for up-to-date information.



The 2010 International Conference on Nuclear Data for Science and Technology will be held April 26–30, 2010, at Jeju Island, South Korea. The meeting is organized by the Korean Nuclear Society and Korea Atomic Energy Research Institute under the auspices of the OECD Nuclear Energy Agency. The conference is the 11<sup>th</sup> in a series held every three years.

The purpose of these conferences is to bring together scientists and engineers involved in the production or use of nuclear data for various applications. The ND2010 conference will cover measurements, theoretical model developments, evaluation, processing, validation and dissemination activities. The scope of the conference includes the following fields of application: fission and fusion energy, accelerator technology, dosimetry and shielding, astrophysics and cosmology, safeguards and security, space, medicine, environment. The corresponding needs for improved nuclear data will be addressed. Additional information about the conference may be obtained from Jonghwa Chang, jhchang@kaeri.re.kr or Young-Ouk Lee, yolee@kaeri.re.kr. The website is <a href="http://www.nd2010.org/">http://www.nd2010.org/</a>.

## **PHYSOR 2010**



The PHYSOR 2010 Topical Meeting will be held May 9–14, 2010, in Pittsburgh, Pennsylvania. The conference is sponsored by the American Nuclear Society (ANS) Reactor Physics Division and co-sponsored by the ANS Mathematics and Computation Division and the American Society of Mechanical Engineers (ASME). The conference theme, *Advances in Reactor Physics to Power the Nuclear Renaissance*, will provide a platform for international experts to

exchange ideas and the latest developments in reactor physics, mechanical and material engineering and related nuclear technologies in light of the nuclear renaissance.

Full papers are to be submitted by October 31, 2009, for one of the following tracks:

- Nuclear Data
- Deterministic Transport Theory
- Monte Carlo Methods
- Reactor Analysis and Optimization
- Reactor Design and Operation
- Nuclear Fuel Cycle
- Nuclear Criticality Safety
- Transient and Safety Analysis
- Research Reactors and Spallation Sources
- Integral Experiments and Facilities for Safety Research
- Verification, Validation and Uncertainty Analysis
- Fuel, Materials and Mechanical Analysis
- Radiation Applications and Nuclear Safeguards
- Nuclear Power and Sustainable Development

Bookmark the website, <u>www.physor2010.org</u>, and check it periodically for news and updates. You may also contact the PHYSOR 2010 Technical Program Chair, Mohamed Ouisloumen, Westinghouse Electric Company, 4350 Northern Pike, Monroeville, PA 15146 (phone +1-412-374-2148, fax +1-412-374-4500, email <u>info@physor2010.org</u>).

#### SATIF-10

The tenth meeting of the task force on Shielding Aspects of Accelerators, Targets and Irradiation Facilities (SATIF-10) will be held June 2–4, 2010, in Geneva, Switzerland. Particle accelerators have evolved over the last decades from simple devices to powerful machines and are having an increasingly important impact on research, technology and lifestyle. Today they cover a wide range of applications including material science and medical applications. In recent years, requirements from new technological and research applications have emerged and the number of accelerator facilities in operation, being commissioned, designed or planned has significantly increased. Their parameters (such as the beam

energy, beam currents and intensities, targets composition, etc.) vary widely giving rise to new radiation shielding aspects and problems.

Abstracts may be submitted via the website through February 28, 2010, on the following topics:

- Source Term and Related Topics
- Induced Radioactivity
- Benchmarking- code/code and code/experimental data
- Dosimetry
- Medical and Industrial Accelerators
- Present status of data and code libraries
- Follow-up of past SATIF agreements and actions
- Accelerator Shielding Handbook
- Discussion/Summary and Future Actions

The activities of the Task Force on Shielding Aspects of Accelerators, Targets and Irradiation Facilities (SATIF) are sponsored by the OECD Nuclear Energy Agency (NEA) and its Nuclear Science Committee (NSC). The main objectives of the SATIF Meetings are to:

\* Promote the exchange of information among experts in the field of accelerator shielding and related topics,

- \* Identify areas where international co-operation can be fruitful and
- \* Carry on a program of work in order to achieve progress in specific priority areas.

The conference website is <u>http://www.cern.ch/SATIF-10</u>. The conference chair, Marco Silari, can be reached at <u>Marco.Silari@cern.ch</u>.

## **Current Problems in Nuclear Physics and Atomic Energy**

The 3<sup>rd</sup> International Conference on Current Problems in Nuclear Physics and Atomic Energy (NPAE-Kyiv2010), which will be held June 7–12, 2010, in Kyiv, Ukraine. This conference is the continuation of the conferences held in Kyiv in 2006 and 2008. The NPAE-Kyiv2010 conference is organized by the National Academy of Sciences of Ukraine (NASU, <u>http://www.nas.gov.ua</u>) the Institute for Nuclear Research of NASU, Kyiv (KINR, <u>http://www.kinr.kiev.ua</u>) in collaboration with Taras Shevchenko National University of Kyiv (NTSU, <u>http://www.univ.kiev.ua</u>).



Authors are invited to submit a one page abstract (300–500 words) by **March 1, 2010**, via e-mail to <u>npae-kyiv2010@kinr.kiev.ua</u> on the following topics:

- Collective processes in atomic nuclei
- Nuclear reactions
- Nuclear structure and decay processes
- Rare nuclear processes
- Neutron and reactor physics, nuclear data
- Problems of atomic energy
- Applied nuclear physics in medicine and industry
- Experimental facilities and detection techniques

All correspondence concerning scientific program, publication and other questions should be sent to:

Dr. Vitali Yu. Denisov Institute for Nuclear Research Prospect Nauky, 47 Kyiv, 03680 Ukraine (fax +38 044 525 44 63, email npae-kyiv2010@kinr.kiev.ua)

Information on the Conference can be found at the website: <u>http://www.kinr.kiev.ua/NPAE-Kyiv2010</u>.

## **ANS 2010 Annual Meeting**

The theme for the 2010 ANS Annual Meeting is "Nuclear Science and Technology—The Right Fit. The Right Time." It will be held in San Diego, CA, June 13–17, 2010. The general chairman is Ross T. Ridenoure of Southern California Edison, and the program Chair is Dr. A. Kurshad Muftuoglu of GE-Hitachi Nuclear Energy. Abstracts may be submitted November 1–January 8 on the following main tracks:

- 1. Accelerator Applications (AAD)
- 2. Aerospace Nuclear Science and Technology (ANSTD)
- 3. Biology and Medicine (BMD)
- 4. Decommissioning, Decontamination, and Reutilization (DDRD)
- 5. Education, Training, and Workforce Development (ETWDD)
- 6. Environmental Sciences (ESD)
- 7. Fuel Cycle and Waste Management (FCWMD)
- 8. Fusion Energy (FED)
- 9. Human Factors, Instrumentation, and Controls (HFICD)
- 10. Isotopes and Radiation (IRD)
- 11. Mathematics and Computation (MCD)
- 12. Nuclear Criticality Safety (NCSD)
- 13. Nuclear Installation Safety (NISD)
- 14. Operations and Power (OPD)
- 15. Radiation Protection and Shielding (RPSD)
- 16. Reactor Physics (RPD)
- 17. Thermal Hydraulics (THD)
- 18. Young Members Group (YMG)

A detailed list of the subtracks, as well as specific instructions regarding paper submission, can be found at <u>http://www.new.ans.org/meetings/file/133</u>. Bookmark <u>http://www.new.ans.org/meetings/calendar/d\_6-13-2010</u> where announcements and updates will be posted.

## 2010 Joint Symposium on Supercomputing in Nuclear Applications + Monte-Carlo

The Japan Atomic Energy Agency Center for Computational Science and e-systems and Nuclear Science and Engineering Directorate will host the combined Supercomputing in Nuclear Applications (SNA) and Monte-Carlo (MC) 2010 meeting October 17–20, 2010, at the Hitotsubashi Memorial Hall in Tokyo.

Abstracts may be submitted by January 30, 2010, on the following topics:

- Applications
- Computational Science
- Computer Science
- Information Technology and its Applications

- High Performance Computing
- Theory for Monte Carlo Simulation
- Physics Modeling in Monte Carlo Simulation

Bookmark the website, <u>http://www.sna-mc-2010.org/</u>, to keep abreast of developments for the meeting. You may also contact <u>sna2010@ml.jaea.go.jp</u>.

## **MTAA 13**

Texas A&M will host 2011 Modern Trends in Activation Analysis (MTTA-13) Conference—fifty years after the first MTAA conference also hosted by the what was then the A&M College of Texas. The meeting will take place March 13–18, 2011.<sup>\*\*</sup> The conference is sponsored by Texas A&M with the cooperation of the International Atomic Energy Agency and the American Nuclear Society.

The scope of the conference will include activation analysis methodology, methodological enhancements, applications of activation analysis to the fields of energy, environment, biology and medicine, geology, archaeology, homeland security, etc. However, this conference will broaden the subject matter somewhat in that it will invite and entertain contributed presentations from all areas of nuclear analytical methods as well as competing technologies.

Conference organizers will provide incentives to selected potential attendees in the form of travel awards. We anticipate making up to twelve awards to students and another twelve to young scientists who submit applications. Awardees will be expected to participate in the meeting by submission of abstracts and manuscripts to the proceedings. While financial need will be considered, recipients will be those considered by the conference organizers to be most likely to provide meaningful participation and future advancement of the science. Details concerning application procedures and criteria for selection will appear in subsequent announcements as well on the conference website.

Make sure you are on the conference contact list by completing the form found at: <u>https://tti.tamu.edu/conferences/mtaa13/registration\_interest.htm</u>. Information on the conference will be posted to <u>http://tti.tamu.edu/conferences/mtaa13/</u>. You may also contact William D. (Dennis) James, Center for Chemical Characterization and Analysis, Texas A&M University, 3144 TAMU, College Station, TX 77843-3144 (phone 979 845-7630, email <u>wd-james@tamu.edu</u>).

## CALENDAR

#### October 2009

International Conference on Opportunities and Challenges for Water Cooled Reactors in the 21st Century, Oct. 27–30, 2009, Vienna, Austria. Contact: Ms. Irina Orlova (phone +43-1-2600-21314, fax +43-1-2600-7, email <u>I.Orlova@iaea.org</u>) url <u>http://www-pub.iaea.org/MTCD/Meetings/Announcements.</u> asp?ConfID=35251.

12th International Group on Research Reactors (IGORR), Oct. 28–30, 2009, CIAE-Beijing, P.R. China. Contact: <u>igorr2009@ciae.ac.cn</u>.

#### November 2009

15<sup>th</sup> BEAMnrc Workshop, Nov. 2–5, 2009, 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, email <u>BEAM\_Workshop@irs.phy.nrc.ca</u>) url <u>http://www.physics.carleton.ca/~drogers/BEAM/course/</u>.

<sup>\*\*</sup>Conference dates are dependent on the Texas A&M University academic calendar and are tentative at this time and subject to change. Final calendar approval is expected before January, 2010.

- 2009 ANS Winter Meeting, and Nuclear Technology Expo Nov. 15–19, 2009, Washington, DC. Contact: Carl Rau, Bechtel Nuclear Power, 5275 Westview Dr., Frederick, MD 21703 (phone 301-228-8740, fax 301-698-4776, email <u>tapolloc@bechtel.com</u>) url <u>http://www.new.ans.org/meetings/m\_64</u>.
- (YPC2009) 2009 Young Professional Congress, Embedded ANS Topical, Nov. 15–19, 2009, Washington, DC. Contact: Dave Pointer, Argonne National Laboratory, 9700 S. Cass Ave., Argonne, IL 60439 (phone 630-252-1052, email <u>david.pointer@anl.gov</u>) url <u>http://www.ans-ypc.org/</u>.

#### March 2010

INREC'10, March 21-24, 2010, Amman, Jordan. URL http://inrec10.inrec-conf.org/.

Practical MCNP for the HP, Medical Physicist, and Rad Engineer, March 22-26, 2010. Contact: David Hunter (phone 505-341-4994, fax: 505-332-9320, email: <u>david@riophysics.com</u>).

#### April 2010

- ANS Student Conference, April 8–11, 2010, Ann Arbor, Michigan. Contact Travis Trahan (<u>tjtrahan@umich.edu</u>) or Michaela Eddy (<u>eddy.michaela@gmail.com</u>) url <u>http://committees.ans.org/students/</u>.
- Pacific Northwest International Conference on Global Nuclear Security-the Decade Ahead, April 11–16, 2010, Portland OR. Contact: Carrie Mathews (phone 509-375-6783, email carrie. <u>mathews@pnl.gov</u>) url <u>http://pnwcgs.pnl.gov/PNIC/PNIC.stm</u>.
- 1st Joint Topical Meeting of the Radiation Protection & Shielding, Isotopes & Radiation, and Biology & Medicine Divisions, April 19–23, 2010, Las Vegas, Nevada. Contact: <u>http://local.ans.org/nv/jtm2010.html</u>.
- 2010 International Conference on Nuclear Data for Science and Technology, April 26–30, 2010, Jeju Island, South Korea. Contact: Jonghwa Chang, jhchang@kaeri.re.kr or Young-Ouk Lee, yolee@kaeri.re.kr. The website is <a href="http://www.nd2010.org/">http://www.nd2010.org/</a>.

#### May 2010

- PHYSOR 2010, May 9–14, 2010, Pittsburgh, PA. Contact: Mohamed Ouisloumen, Westinghouse Electric Company, 4350 Northern Pike, Monroeville, PA 15146 (phone +1-412-374-2148, fax +1-412-374-4500, email info@physor2010.org) url: www.physor2010.org.
- 1st Annual WNU School on Radioisotopes, May 15–June 4, 2010, Seoul, Republic of Korea. URL <u>http://www.world-nuclear-university.org/about.aspx?id=25726</u>.

#### June 2010

- SATIF-10, June–4, 2010, Geneva, Switzerland. Contact: Marco Silari (Marco.Silari@cern.ch) url http://www.cern.ch/SATIF-10
- 3rd International Conference "Current Problems in Nuclear Physics and Atomic Energy," (NPAE-Kyiv2010), June 7–12, 2010, Kyiv, NPAE Ukraine. Contact: Dr. Vitali Yu. Denisov, Institute for Nuclear Research, Prospect Nauky, 47, Kyiv, 03680, Ukraine (fax +38 044 525 44 63, email <u>npae-kyiv2010@kinr.kiev.ua</u>) url <u>http://www.kinr.kiev.ua/NPAE-Kyiv2010</u>.
- ANS Annual Meeting, June 13–17, 2010, San Diego, CA. Contact: url <u>http://www.new.ans.org/meetings/file/133</u>

#### October 2010

SNA2010 and MC2010, Oct. 18–21, 2010, Tokyo. Contact: CCSE, Japan Atomic Energy Agency, 8F, Sumitomo-Ueno Bldg. No.8, 6-9-3 Higashi-Ueno, Taito-ku, Tokyo 110-0015, Japan (email <u>info@sna-mc-2010.org</u>, fax +81-3-5246-2537) url <u>http://www.sna-mc-2010.org/</u>.

#### March 2011

MTTA-13, March 13–18, 2011, College Station, TX. Contact William D. (Dennis) James, Center for Chemical Characterization and Analysis, Texas A&M University, 3144 TAMU, College Station, TX 77843-3144 (phone 979 845-7630, email <u>wd-james@tamu.edu</u>) url <u>http://tti.tamu.edu/conferences/mtaa13/</u>.