Radiation Safety Information Computational Center

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Almost every way we make electricity today, except for the emerging renewables and nuclear, puts out CO2. And so, what we're going to have to do at a global scale, is create a new system. And so, we need energy miracles.

Bill Gates

RSICC will observe the holiday season beginning December 23, 2010 through January 3, 2011. We will respond to your requests upon return. Merry Christmas and Happy 2011!

RSICC AND NEADB CO-SPONSOR WORKSHOPS

RSAC-7.2 Training Workshop
Radiological Safety Analysis Computer Program Training
Presented by RSAC-7.2 Developers (Idaho National Laboratory) at Oak Ridge National Laboratory
February 21-23, 2011
Contact: http://rsicc.ornl.gov/rsiccnew/rsac7-workshop/rsac7.htm

Joint Geant4/SWORD Workshop
Presented by Geant4 Developers (*SLAC* National Accelerator Laboratory/Lawrence Livermore National

Laboratory) and SWORD Developers (Naval Research Laboratory) at Oak Ridge National Laboratory
March 7-11, 2011
Contact: http://rsicc.ornl.gov/rsiccnew/geant4-sword-workshop/geant4-sword.htm

Brookhaven National Laboratory offers "Nuclear Nonproliferation, Safeguards, and Security in the 21st Century"

Course Date: June 13-July 1, 2011
The summer course is designed to give graduate students a sound understanding of the foundations of the nuclear nonproliferation regime and U.S. programs and policies developed to meet the emerging nuclear proliferation threats to our security. The course is designed for those with a major in technical areas or in international relations. The course will present students with critical assessments of the current nonproliferation arrangements. With exercises and demonstrations the course will introduce students to the technologies of international nuclear safeguards and detection of nuclear and other radioactive materials. Above all, the course aims to give participants the knowledge, analytic tools and motivation to contribute to improvement of the nonproliferation regime. Additional information is available at: http://www.bnl.gov/education/nnss/default.asp.

NUCLEAR FIRSTS: MILESTONES ON THE ROAD TO NUCLEAR POWER DEVELOPMENT

By Gail H. Marcus
"Nuclear Firsts" is the first book to comprehensively trace the technical evolution of nuclear power development, both in the United States and elsewhere. In all, about 80 facilities and events in more than 10 countries are profiled. Developments in reactor technologies of all types are covered, as well as developments in reprocessing, enrichment, waste disposal, and some nonelectric applications of reactors (radioisotope production, district heating, desalination, and neutron beam therapy). The book also covers the first government and private organizations that developed around the nuclear industry.

Both well-known facilities and events, such as the first demonstration of controlled fission and the first uses of reactors to produce electricity, and lesser known ones, such as early reactors in Antarctica and at the Panama Canal, are covered. Although many facilities are mentioned in the text or in tables, only "firsts of a kind" are discussed in detail. Tables are included to identify other "firsts," such as the first reactor in a state or a country, that may be of interest to individual readers.

Six chapters cover:

- the scientific developments leading to the first demonstration of controlled fission
- the developments from the first demonstration of controlled fission to the first demonstration of the production of usable amounts of electricity
- the rapid evolution to an operating commercial nuclear plant built for peaceful purposes only
- the growth of nuclear reactor applications
- the maturation of the nuclear industry
- where the firsts have led and what lies ahead.

"Nuclear Firsts" is written for a broad audience. Nuclear professionals will find it useful as an authoritative reference; science students and teachers will be able to use it as a general educational tool. This book will also appeal to organizations associated with the various firsts and to residents near the sites of the firsts, as it will provide them with information about the historical importance of locations in their own neighborhoods. Because the book is not limited to U.S. firsts, the international community will also find the book of interest.

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CHANGES TO THE RSICC CODE AND DATA COLLECTION

CCC-776/VENTEASY

Oak Ridge National Laboratory contributed VENTEASY. VENTEASY may be thought of as a small version of BOLD VENTURE, but its purpose is only to perform the VENTNEUT neutronics calculation. The finite difference representation of diffusion theory or simple approximation is used. Neutron-flux-eigenvalue problems are solved by direct inner-outer iterations with restrained line over relaxation. Asymptotic flux extrapolation is used when distinct error modes are established. The eigenvalue of a problem is calculated each outer iteration from an overall neutron balance; however, source ratios are used in some situations. The package is transmitted as a self-extracting zip file on CD which includes the referenced documents, executable files and example problems, FORTRAN; PC-DOS command line (C776PCX8600).

PSR-550/ALICE2010

A collaboration of Lawrence Livermore National Laboratory, Livermore, California; Institut f. Reaktorsicherheit, Karlsruhe, Germany; Los Alamos National Laboratory, Los Alamos, New Mexico, and the Institute of Physics and Power Engineering, Obninsk, Russia, produced this newly frozen version of this statistical model code system to calculate particle spectra from HMS (Hybrid Monte-Carlo Simulation) precompound nucleus decay. This release is designated HMS-ALICE-2010. The code uses the HMS precompound decay model, the Weisskopf-Ewing evaporation model (optional with s-wave approximation) and Bohr-Wheeler fission models, all with multiple particle emission cascades to estimate single- and double-differential emission spectra and product yields of nuclear reactions induced by probes from photons to heavy ions. Initial excitations up to 1 GeV should be tolerated, but a range of 0.2-250 MeV is advised as pion production channels have not yet been programmed into the physics. Product yields include A, Z of fission products. An option exists to give output of exclusive particle emission spectra of up to multiplicity 3. This version of ALICE corrects two warnings in previous versions of ALICE due to a missing common in one subroutine and transformations into lab coordinates for precompound cluster emission as well as minor cosmetic changes to the greeting. In this release, a “fix” was made to prevent negative indices for some cluster arrays other than 4He, if the clusters were unbound. A statement in the completion screen message that the ENDV array is only populated for nucleon in reactions was also added.

ALICE2010 runs on PC under Windows or Linux and on Mac computers. A Fortran 95 compiler is required on all systems as no executables are distributed. The package is transmitted on a CD in a WinZIP file which contains documentation, source code, and example problems. Reference: Manual (July 27, 2008), FORTRAN; PC and Mac (P00550PC58602).

PSR-558/TEMPEST-2

TEMPEST-2, Thermalization Program for Neutron Spectra and Multi-Group Cross-Sections was contributed by Boeing Huntsville Simulation Center, The Boeing Company, Huntsville, Alabama, through the NEA Data Bank, Issy-les-Moulineaux, France. TEMPEST2 is based upon

the Wigner-Wilkins approximation for light moderators and the Wilkins approximation for heavy moderators. The program provides microscopic and macroscopic cross-section averages over the thermal neutron spectrum.

TEMPEST2 was created for the IBM 709 and IBM 7090 computers and modified for the IBM 360 and IBM 3081 computers. The package contains the source code, JCL, cross section library and input/output. Also included are the references listed in Section 10 of the abstract and is transmitted on one CD in a self-extracting compressed file, FORTRAN (P00558I036000).

PSR-559/TEMPEST- BNW

TEMPEST-BNW: Transient 3-D Thermohydraulics for FBR was contributed by Pacific Northwest Laboratory, Richland, Washington, through the NEA Data Bank, Issy-les-Moulineaux, France. The finite-difference approach for the fluid-flow solution in TEMPEST-BNW is based on a semi-implicit procedure whereby the momentum equations are solved explicitly, and the continuity/pressure solution is obtained implicitly. The energy equation is solved with a fully implicit method, and a direct steady-state option is available for heat transfer only problems. TEMPEST-BNW is a transient, three-dimensional, hydrothermal program designed to analyze a range of coupled fluid dynamic and heat transfer systems of particular interest to the Fast Breeder Reactor (FBR) thermal- hydraulic design community. Turbulence is treated using a two-equation model. Two auxiliary plotting programs, SEQUEL and MANPLOT, for use with TEMPEST BNW output are included. SEQUEL may be operated in batch or interactive mode; it generates data required for vector plots, contour plots of scalar quantities, line plots, grid and boundary plots, and time-history plots. MANPLOT reads the SEQUEL-generated data and creates the hard copy plots. TEMPEST-BNW can be a valuable hydrothermal design analysis tool in areas outside the intended FBR thermal-hydraulic design community.

The package contains source code, sample input/output and the references listed in Section 10 of the abstract. TEMPEST-BNW is transmitted on one CD in a self-extracting compressed file, FORTRAN (P00559C760000).

MIS-009/HOTSPOT

HOTSPOT 2.07.1 Health Physics Codes were contributed by National Atmospheric Release Advisory Center, Lawrence Livermore National Laboratory, Livermore, CA. The HOTSPOT Health Physics codes were created to provide Health Physics personnel with a fast, field-portable calculational tool for evaluating accidents involving radioactive materials. HOTSPOT codes are a first-order approximation of the radiation effects associated with the atmospheric release of radioactive materials.

Four general programs, PLUME, EXPLOSION, FIRE, and RESUSPENSION, calculate a downwind assessment following the release of radioactive material resulting from a continuous or puff release, explosive release, fuel fire, or an area contamination event. Other programs deal with the release of plutonium, uranium, and tritium to expedite an initial assessment of accidents involving nuclear weapons. Additional programs deal specifically with the release of plutonium, uranium, and tritium to expedite an initial assessment of accidents involving nuclear weapons. The FIDLER program can calibrate radiation survey instruments for ground survey measurements and initial screening of personnel for possible plutonium uptake in the lung.

The package is transmitted in a ZIP file on one CD including a User's Guide, PC executables, sample input and output files. No source files are included in the package, BASIC, Pentium (M009IBMPC00).

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.

TRAINING

Introductory MCNP, Advanced MCNP, 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.

2011 Classes		
January 24–28	Introduction to MCNP using the MCNPX Visual Editor	Seattle, WA
January 31–February 04	Intermediate MCNP Visual Editor with a special emphasis on tallies and variance reduction	Seattle, WA
March 7–11	Introduction to MCNP using the MCNPX Visual Editor	London, UK
April 11–15	Introduction to MCNP using the MCNPX Visual Editor	Las Vegas, NV
April 18–22	Intermediate MCNP Visual Editor with a special emphasis on tallies and variance reduction	Las Vegas, NV
June 6–10	Introduction to MCNP using the MCNPX Visual Editor	Anaheim, CA
June 13–17	Intermediate MCNP Visual Editor with a special emphasis on tallies and variance reduction	Anaheim, CA
September 12–16	Introduction to MCNP using the MCNPX Visual Editor	Myrtle Beach, SC
September 19–23	Intermediate MCNP Visual Editor with a special emphasis on tallies and variance reduction	Myrtle Beach, SC

October 24–28	Introduction to MCNP using the MCNPX Visual Editor	London, UK
November 7–11	Introduction to MCNP using the MCNPX Visual Editor	Las Vegas, NV
November 14–18	Intermediate MCNP Visual Editor with a special emphasis on tallies and variance reduction	Las Vegas, NV

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.

MCNPX Training

2011 Classes		
January 10–14	MCNPX Intermediate Workshop	Las Vegas, NV
Feb 28–March 4	MCNPX Intermediate Workshop	Paris, France
May 9–13	MCNPX Intermediate Workshop	Chicago, IL
September 26–30	MCNPX Intermediate Workshop	Washington DC
October 17–21	MCNPX Intermediate Workshop	London, U.K.

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 is tentative, as workshops may be added, removed, or modified throughout the year, depending on user interests. Workshops with fewer than 15 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, http://mcnpx.lanl.gov/. To register send an email to Randy Schwarz, indicating the workshop of interest to you.

NEA Data Bank Courses

February28 - March 4, 2011
MCNP/MCNPX Training course, OECD NEA Data Bank - co-sponsored by ORNL/RSICC, NEA Headquarters, Issy-les-Moulineaux, France.
http://www.nea.fr/dbprog/courses/mcourse31.php

March 7-11, 2011
SCALE Lattice Physics and Depletion Training Course, OECD NEA Data Bank
- co-sponsored by ORNL/RSICC, NEA Headquarters, Issy-les-Moulineaux, France.
http://www.nea.fr/dbprog/courses/scalec13.php

March 14-18, 2011
Training course on " Analytical Benchmarks: Case Studies in Neutron Transport Theory" using the Handbook (including computer codes) published on "Analytical Benchmarks for Nuclear Engineering Applications (Case Studies in Neutron Transport Theory)". This course, held at the NEA, Issy-les-Moulineaux, France, is intended for transport methods developers and those who teach reactor physics and transport theory. In addition, the course would be appropriate for anyone with an analytical interest in solving equations and the application of numerical methods to obtain extreme accuracy. Teacher: Prof. Barry D. Ganapol.

ORAU Offers Health Physics and Radiation Safety Training

ORAU is pleased to offer the following courses. If you wish to discuss having a customized course delivered at your site, please contact Paul Frame at 865-576-3388 or Paul.Frame@orau.org.

Course	Dates
MARSSIM	January 10–14, 2011
Site Characterization in Support of Decommissioning: Planning, Implementation, and Evaluation	January 24–28, 2011
Applied Health Physics	February 28–April 1, 2011
CHP Part I Review	April 5–7, 2011
Gamma Spectroscopy	April 11–15, 2011

CONFERENCES

Advancing Tools and Solutions for Nuclear Material Detection

The 2nd National Conference on Advancing Tools and Solutions for Nuclear Material Detection will be held in Salt Lake City, UT, February 3–4, 2011. Full papers are requested by January 10, 2011, on the following topics:

- Detector & Detector Materials
- Network Systems & Algorithms
- Active Interrogation

- Nuclear Forensics
- Nuclear Safeguards
- Passive Detection
- Nuclear Data & Active Detection Technologies
- Artificial Intelligence in Homeland Security Applications
- Advanced Computational Solutions for Nuclear Material Detection
- Advanced Interactive Visualization Techniques of Interest to Material Detection for Homeland Security

A summary of the Conference will be presented in April 2011 at the ARI Workshop in Washington, DC. Further information may be obtained from Tatjana Jevremovic,Nuclear Engineering Director, University of Utah 2298 MEB, 50 South Central Drive, University of Utah, Salt Lake City, UT 84112 (phone 801-587-9696, email Tatjana.Jevremovic@utah.edu).

CONTE 2011

The 2011 Conference on Nuclear Training and Education (CONTE 2011) will be held in Jacksonville, Florida, February 6–9, 2011. General chair of the meeting is Stephen Kuczynski, Senior VP of Engineering and Technical Services, Exelon Nuclear. For further information, please visit the ANS website, http://www.new.ans.org/meetings/c_2.

NETS-2011

The Nuclear and Emerging Technologies for Space (NETS-2011) topical meeting will be held February 7–10, 2011, in Albuquerque, NM. The meeting is sponsored by the ANS Aerospace Nuclear Science and Technology Division and the ANS Trinity Section. NETS-2011 will address strategies for implementing advanced power and propulsion technologies, as well as radiation shielding protection, in support of manned and unmanned missions into space. It will provide a communications network and forum for information exchange for research and management personnel from government, industry, academia, and the national laboratory system who are involved in space nuclear activities. Registration, program, exhibit, and other information may be found on the conference website at http://anstd.ans.org/NETS2011/AboutNETS2011.htm.

WM 2011

The annual Waste Management Conference (WM 2011) will be held February 27–March 3, 2011, in Phoenix, Arizona. The conference theme is "Global Achievements and Challenges in Waste Management". Regarded as the premier international organization for the management of radioactive material and related topics, the 2011 conference attracts decision makers, project managers, and technical and procurement specialists representing the government and private organizations from over 35 countries. In addition to the conference, two workshops are scheduled for March 3 and 4, titled "Commercial Low-Level Waste (LLW) Disposal Performance Assessment, the Safety Case, and Long-Term Monitoring " and "Joint Public Federal Workshop," respectively. Bookmark the website, http://www.wmsym.org/, to monitor the latest information with regard to the workshops, program, arrangements, etc.

PSA 2011

The 2011 Probabilistic Safety Analysis conference (PSA 2011) will be held in Wilmington, North Carolina, March 13–17, 2011. The conference is sponsored by the ANS Nuclear Installations Safety Division (NISD) and the Wilmington Area Local Section of the ANS (WLS). Bookmark and check the

conference website at http://meetingsandconferences.com/psa2011/ often to remain informed about deadlines and activities.

MTAA 13

Texas A&M will host the 2011 Modern Trends in Activation Analysis (MTAA-13) Conference March 13–18, 2011—fifty years after the first MTAA conference also hosted by what was then the A&M College of Texas. 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 as the conference website.

Make sure you are on the conference contact list by completing the form found at: https://tti.tamu.edu/conferences/mtaa13/registration_interest.htm. Information on the conference will be posted to http://tti.tamu.edu/conferences/mtaa13/. 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 wd-james@tamu.edu).

ICAPP

The 2011 International Congress on Advances in Nuclear Power Plants (ICAPP 2011) will be held May 2–5, 2011, in Nice, France. Participants in the conference will benefit from the opportunity to meet experts of the nuclear industry and to review the recent evolution in reactor physics, thermal-hydraulics, materials, operation and maintenance, safety and licensing of new nuclear power plants. Information regarding the conference will be posted at the website, https://www.sfen.fr/index.php/plain_site/icapp_international_congress_on_advances_in_npps. You may also contact Sylvie Delaplace at icapp2011@sfen.fr.

MC 2011

The 2011 International Conference on Mathematics and Computational Methods applied to Nuclear Science and Engineering (MC 2011) will be held in Rio de Janeiro, May 8–12, 2011. The conference will provide an international forum for scientists to present their most recent work and exchange ideas on a powerful class of methodologies extensively used for solving mathematical models of physical phenomena and processes applied to nuclear science and engineering. One of the aims is to promote new research tools and procedures that help link mathematics, applied sciences and technology. Therefore, MC 2011 will offer an opportunity for direct information exchange between participants from both

academia and industry. The interdisciplinary technical program will consist of plenary sessions, workshops, parallel oral presentation sessions and poster sessions on the following topics:

- Accelerator & subcritical systems
- Advanced nuclear reactor concepts
- Atmospheric and ocean radiative transfer
- Computational fluid dynamics & thermal hydraulics
- Deterministic & stochastic neutral and charged particle transport modeling
- High-fidelity multiphysics simulations
- Medical physics
- Nuclear chemistry
- Nuclear criticality safety
- Nuclear data evaluation & application
- Nuclear fuel cycle
- Nuclear fuels
- Nuclear geophysics
- Nuclear materials sciences
- Nuclear non-proliferation and homeland security
- Nuclear production of hydrogen
- Nuclear radiation shielding & dosimetry
- Nuclear reactor analysis
- Optimization, data assimilation & artificial intelligence
- Plasma physics/fusion
- Radiobiology
- Structural mechanics
- Uncertainty quantification
- Verification & validation

General Chair of the meeting is Cassiano de Oliveira (cassiano@unm.edu). Bookmark the conference website, http://www.mc2011.org, to keep abreast of conference information.

ISRD-14

The 14th International Symposium on Reactor Dosimetry (ISRD-14) will be held May 22–27, 2011, at the Omni Mount Washington Resort, Bretton Woods, New Hampshire. This Symposium is held approximately every three years to provide a forum for the interchange of state-of-the-art techniques, data bases and standardization of radiation metrology. The Symposium will be of value to those involved in reactor dosimetry, including researchers, manufacturers and representatives from industry, utilities and regulatory agencies. The Symposium is jointly sponsored by ASTM International and the European Working Group on Reactor Dosimetry (EWGRD). It is organized by ASTM Committee E10 on Nuclear Technology and Applications.

The Symposium theme is dosimetry for the assessment of irradiated reactor materials and reactor experiments, featuring radiation metrology techniques, data bases and standardization. The Symposium will be organized into oral and poster presentations, as well as informal round-table workshops. The meeting language will be English. Papers accepted for presentation at the symposium will be published in the on-line *Journal of ASTM International*. Bookmark the conference website, http://www.reactordosimetry.com/, to remain current with conference information.

CALENDAR

January 2011

First International Course, Nuclear Criticality-Safety, January 17—28, 2011, Saclay, France. Contact: Nadia Nowacki (nadia.nowacki@cea.fr).

February 2011

2nd National Conference on Advancing Tools and Solutions for Nuclear Material Detection, Feb. 3–4, 2011, Salt Lake City, UT. Contact: Tatjana Jevremovic,Nuclear Engineering Director, University of Utah 2298 MEB, 50 South Central Drive, University of Utah, Salt Lake City, UT 84112 (phone 801-587-9696, email Tatjana.Jevremovic@utah.edu).

Conference on Nuclear Training and Education (CONTE 2011), Feb. 6–9, 2011, Jacksonville, Florida. Contact: Stephen Kuczynski, Senior VP of Engineering and Technical Services, Exelon Nuclear. The website is www.ans.org/meetings.

Nuclear and Emerging Technologies for Space 2011 (NETS 2011), Feb. 7–10, 2011, Albuquerque, NM. The website is http://anstd.ans.org/NETS2011/AboutNETS2011.htm.

RSAC-7-2 Training Course, February 21–23, 2011, Oak Ridge National Laboratory, Oak Ridge, TN. Contact: http://rsicc.ornl.gov/rsiccnew/rsac7-workshop/rsac7.htm.

March 2011

Geant4/SWORD Training Course, March 7–11, 2011, Oak Ridge National Laboratory, Oak Ridge, TN. Contact: http://rsicc.ornl.gov/rsiccnew/geant4-sword-workshop/geant4-sword.htm.

International Topical Meeting on Probabilistic Safety Assessment and Analysis (PSA 2011), March 13–17, 2011, Hilton Wilmington Riverside, Wilmington, NC. Meeting information: http://www.ans.org/goto/nad.cgi?id=1273208400-24.

Modern Trends in Activation Analysis (MTAA-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 wd-james@tamu.edu) url: http://tti.tamu.edu/conferences/mtaa13/.

Seminar and Training on Scaling, Uncertainty and 3D Coupled Code Calculations, March 28- April 15, 2011, Wilmington, NC. Contact: Alessandro Petruzzi (a.petruzzi@ing.unipi.it), URL - http://www.grnspg.ing.unipi.it/3dsuncop/2011/index.html.

April 2011

AccApp '11 - Tenth International Topical Meeting on Nuclear Applications of Accelerators, April 3–7, 2011, Knoxville, TN. Contact: Conference Chair, Phil Ferguson, Oak Ridge National Laboratory (phone 865-241-5702, email fergusonpd@ornl.gov) url: http://accapp11.org.

5th Joint Symposium on Computational Cancer Research Tuesday, April 05, 2011 - Thursday, April 07, 2011, MD Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, Texas 77030, United States. Scharlene T. Wilson, Conference Coordinator, email: stwilson@mdanderson.org, phone: 713-563-0435

May 2011

MC 2011, May 8–12, 2011, Rio de Janeiro, Brazil. Meeting information: http://www.mc2011.org/.

International Symposium on Reactor Dosimetry (ISRD-14), May 22–27, 2011, Bretton Woods, New Hampshire. Contact: Dr. David W. Vehar, Sandia National Laboratories (dwvehar@sandia.gov) url http://www.reactordosimetry.com/.

June 2011

Workshop on Activation Data (Kopeck), June 1–3, 2011, Charles University in Prague, Czech Republic. Contact: Jean-Christophe.Sublet@ccfe.ac.uk, url http://www.ccfe.ac.uk/EASY_workshops.aspx.

Nuclear Nonproliferation, Safeguards, and Security in the 21st Century, June 13-July 1, 2011, BrookHaven National Laboratory. Contact: Fran Capasso, Phone: (631) 344-3177, Email: capasso@bnl.gov; URL - http://www.bnl.gov/education/nnss/default.asp

ANS Annual Meeting, June 26–30, 2011, Hollywood, FL. The website is http://www.new.ans.org/meetings.

Industrial Radiation and Radioisotope Measurement Applications (IRRMA-8), June 26–July 1, 2011, Kansas City, MO. Contact: William L. Dunn, Kansas State University (email dunn@k-state.edu) url http://www.dce.k-state.edu/conf/irrma/.

September 2011

22nd International Conference on Transport Theory (ICTT-22), Sept. 11–15, 2011, Portland, Oregon. Contact: Todd Palmer, Technical Program Chair, Oregon State University (palmerts@ne.orst.edu).

Conference on Physics and Technology of Reactors and Applications (PHYTRA2), September 26-28, 2011 in the Fez, Morocco. E-mail: phytra2@gmtr-association.com, URL: http:// www.gmtr-association.com/phytra2/

October 2011

2011 ANS Winter Meeting and Nuclear Technology Expo, Oct. 30–Nov. 3, 2011, Washington, DC. The website is http://www.new.ans.org/meetings/c_1.