Radiation Safety Information Computational Center

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"There are no menial jobs, only menial attitudes."-- William J. Bennett

Web Address is Easier to Remember!

RSICC has a new web address! Be sure and bookmark it **http://rsicc.ornl.gov**.

Changes to the Computer Code and Data Collection

Three packages were updated with new version in the computer code and data collection.

CCC-623/RISKIND 2.0

OP SYS: Windows
Language: Fortran 95, Basic & C
Computers: Personal Computer
Format: Windows

Argonne National Laboratory, Environmental Assessment Division, Argonne, Illinois, through the ESTSC, contributed a newly frozen version of this code system for the analysis of radiological consequence and health risks to individuals and the collective population from exposures to spent nuclear fuel or other radioactive materials during transportation by either truck or rail. The software is intended to provide scenario-specific analysis when evaluating alternatives for environmental assessment activities, including those for major federal actions involving radioactive material transport as required by the National Environmental Policy Act (NEPA). RISKIND 2.0 is an upgrade from the previous release of RISKIND (ver. 1.11). The primary difference between the two versions is the addition of a geographic information system (GIS) component, the SylvanMaps(R) OCX map control (**http://www.sylvanmaps.com**). Other upgrades include improved file input/output and use of the Windows® Help file system.

RISKIND 2.0 offers a user-friendly WindowsTM point-and-click interface for problem entry.

Standard health physics models are used for determining routine radiological exposure to external radiation sources. The accident scenario portion of the program incorporates a Gaussian puff air

dispersion model for atmospheric releases. The air dispersion model includes a virtual point source model, wet/dry deposition, plume depletion, and can account for initial thermal buoyancy effects.

The recommended computer platform is a 400 MHz or faster PC with 128 Mbytes or more of memory to handle the increased demands imposed by the map display. RISKIND will run on machines under Windows 95/98/ME/NT/2000/XP operating systems. The executables included in the package were created with Lahey Fortran 95 V5.5 and MS Developer Studio 6 (Visual Basic 6 and Visual C 6). Source files are not included. The package is transmitted on CD-ROM which contains executables, documentation and sample cases in a self-installing Windows file. Reference: ANL/EAD-1 (November 1995) and Errata. Fortran 95 (35%), Microsoft Visual Basic (60%), C (5%); Pentium (C00623IBMPC02).

CCC-641/NESTLE 5.2.1

OP SYS: Unix
Language: Fortran 77
Computers: Sun, IBM RS/6000
Format: tar

Electric Power Research Center at North Carolina State University, Raleigh, contributed a newly frozen version of this code system for solving the few-group neutron diffusion equation utilizing the Nodal Expansion Method (NEM).

The April 2004, RSICC update to NESTLE Version 5.21 is a modification of the previous Version 5.2.1 and includes the following corrections:

1. Corrected bugs in the reading of initial number densities (main.f, file_numden.f)
2. Corrected the indexing of alphai array (starter.f)
3. Averaged DL* array for NEM stability for hexagonal core calculation (geometry.f, nonnemh.f)
4. Corrected bugs in ABD and AB arrays (chain.f and burnnode.f)

The NESTLE code can solve the eigenvalue (criticality), eigenvalue adjoint, external fixed-source steady-state, and external fixed-source or eigenvalue initiated transient problems. The eigenvalue problem allows criticality searches to be completed, and the external fixed-source steady-state problem can search to achieve a specified power level. Transient problems model delayed neutrons via precursor groups. Several core properties can be input as time dependent. Two- or four-energy groups can be utilized, with all energy groups being thermal groups (i.e., upscatter exits) if desired. Core geometries modeled include Cartesian and hexagonal. Three-, two-, and one-dimensional models can be utilized with various symmetries. The thermal conditions predicted by the thermal-hydraulic model of the core are used to correct cross sections for temperature and density effects. Cross sections are parameterized by color, control rod state (i.e., in or out), and burnup, allowing fuel depletion to be modeled. Either a macroscopic or microscopic model may be employed.

NESTLE runs on Unix workstations, specifically the Sun and IBM/6000. A Fortran 77 or 90 compiler is required; the package contains no executables. This release has not been implemented on personal computers. At NCSU, NESTLE was run on a 440 MHz Sun Ultra10 under Solaris with Sun's Fortran compiler. At RSICC, it was tested on an IBM RS/6000 Model 270 under AIX 5.1 with xlf Fortran 77 Version 8.1.0.2 and a Sun UltraSparc 60 under SunOS 5.6, with F77 Version 5.0. The package is transmitted on one CD in a GNU compressed tar file. The disk contains documentation, source code, makefile, and test problem input/output. Reference: NCSU report (Revised July 2003). Unix Workstations; Fortran 77, Fortran 90 (C00641MNYCP04).

CCC-652/MACCS2 Ver. 1.13.1

OP SYS: Windows
Language: Fortran 77
Computers: Personal Computer
Format: Windows

Sandia National Laboratories, Albuquerque, New Mexico, contributed a newly frozen version of this MELCOR accident consequence code system for the calculation of the health and economic consequences of accidental atmospheric radiological releases. MACCS2 simulates the impact of accidental atmospheric releases of radiological materials on the surrounding environment. The principal phenomena considered in MACCS are atmospheric transport, mitigative actions based on dose projection, dose accumulation by a number of pathways including food and water ingestion, early and latent health effects, and economic costs. MACCS can be used for a variety of applications including probabilistic risk assessment (PRA) of nuclear power plants and other nuclear facilities, sensitivity studies to gain a better understanding of the parameters important to PRA, and cost benefit analysis. Version 1.13.1 includes several corrections and enhancements from the previous Version 1.12. The readme.txt file includes a list of changes.

Included executables were compiled on a Pentium 4 using Compaq Visual Fortran Professional 6.6B under Windows XP Professional. The executables can be run on Windows XP, 2000 and NT platforms. Testing on non-PC systems has not been done for MACCS2 Version 1.13. The package is transmitted on a CD in a WinZIP file which includes the Fortran source codes, executables, data, scripts and sample problems. References: "readme.txt" (February 2004); NUREG/CR-6613, NUREG/CR-6547, (December 1997); NUREG/CR-4691, Vol. 2 (February 1990); EPA-520/1-88-020 (September 1988); EPA 402-R-93-081 (September 1993). Fortran 77; Pentium processor (C00652PC48601).

CONFERENCES, COURSES, SYMPOSIA

RSICC attempts to keep its users/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 **FINCHSY@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. Below is a condensed list of the **conferences** only listed chronologically. More details (if available) are listed alphabetically following the table.

Condensed Table of Conferences

Name of Conference	Date and Location	Web Site	Abstract/Paper Due Date
ANS Annual Summer Meeting	June 13-17, 2004 Pittsburgh, Pennsylvania	**http://www.ans.org/meetings/students call for papers**	passed
Summer School on "Concepts and Trends in Medical Dosimetry	June 22-26, 2004 New Haven, Connecticut	**http://www.ssd14.org/**	passed
14th International Conference on Solid State Dosimetry	June 27-July 2, 2004 New Haven, Connecticut	**http://www.ssd14.org/**	passed
1st International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry	Sept. 4-8, 2004 Helsinki, Finland	**http://www.eanm.org/eanm.php?kopf=head/hd_calendar.html&worte=calendar/calendar.php**	---
12th International Conference on the Physics of Highly Charged Ions	Sept. 6-10, 2004 Vilnius, Lithuania	**http://www.itpa.lt/hci2004/**	passed
16th American Nuclear Society Topical Meeting on the Technology of Fusion Energy	Sept. 14-16, 2004 Madison, Wisconsin	**http://fti.neep.wisc.edu/tofe**	passed
International Conference on Nuclear Data for Science and Technology "ND2004"	Sept. 26-Oct. 1, 2004 Santa Fe, New Mexico	**http://t16web.lanl.gov/nd2004/**	passed
5th International Conference of Yugoslav Nuclear Society (YUNS)	Sept. 27-30, 2004 Belgrade, Serbia & Montenegro	**http://www.vin.bg.ac.yu/YUNS/Yunsc2004.html**	June 1, 2004
Americas Nuclear Energy Symposium 2004	Oct. 3-6, 2004 Miami Beach, FL	**http://anes.fiu.edu/2004/**	NA
11th International Congress on Neutron Capture Therapy (ISNCT-11)	Oct. 11-15, 2004 Boston, Massachusetts	future site	

Name of Conference	Date and Location	Web Site	Abstract/Paper Due Date
ANS Annual Winter Meeting and Nuclear Technology Expo	Nov. 14-18, 2004 Washington, D.C.	**http://www.ans.org/meetings/**	
Monte Carlo 2005 Topical Meeting	Apr. 17-21, 2005 Chattanooga, Tennessee	**http://MonteCarlo2005.org**	**call for papers**
Twelfth International Symposium on Reactor Dosimetry	May 8-13, 2005 Gatlinburg, Tennessee	**announcement / call for papers in pdf** **http://reactordosimetry.com**	Aug. 1
ANS Annual Summer Meeting	June 5-9, 2005 San Diego, California	**http://www.ans.org/meetings/**	

2004 Conferences

Americas Nuclear Energy Symposium 2004

The United States Department of Energy and the American Nuclear Society are pleased to announce the next Americas Nuclear Energy Symposium (ANES 2004), which will take place Sunday through Wednesday, **October 3-6, 2004,** at the Deauville Beach Resort in Miami Beach, Florida.

ANES 2004 will feature the theme "Building Bridges to Greater Cooperation." The symposium will provide you with the latest information about the use and development of nuclear energy technology throughout the Americas. The format will include open panel discussions, case studies, technical breakout sessions, and an exhibit of international organizations, not to mention great opportunities to network.

ANES 2004 will include sessions on nuclear reactors; technology development and deployment; production, disposal and usage of isotopes; fuel cycle and waste management; new applications; finance; and environmental, infrastructure and communications issues.

Another successful event is anticipated with the largest number of participants yet attending from across Canada, the Caribbean, Latin America and the United States. Please visit the website at **http://anes.fiu.edu** for frequent updates.

1st International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry

The 1st International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry will take place in conjunction with the annual European Association of Nuclear Medicine (EANM) Congress in Helsinki, Finland, **September 4-8, 2004.**

The format of the meeting has evolved from a series of seven interesting and important radiopharmaceutical and dosimetry symposia held approximately every 5 years since 1970, with distribution of published proceedings. The last meeting (7th International Radiopharmaceutical Dosimetry Symposium) was held in Nashville, Tennessee in 2002.

The decisions of the scientific committee and the set-up of the program for Helsinki will be coordinated by the EANM Task Group on Dosimetry and EANM Therapy Committee. All organisational matters will be handled by the EANM.

A call for abstracts (also electronic) will go out in a few months, with authors notified of the outcome in May 2004. Contributors will be asked either to bring an electronic version of their manuscript to the meeting in September 2004 or to submit it within two months after the meeting; early plans are to have extended peer-reviewed abstracts published as a supplement to a journal.

For more information contact:

Michael Lassmann, Chair T/G Dosimetry EANM, **Lassmann@nuklearmedizin.uni-wuerzburg.de** or Val Lewington, Chair Therapy Committee EANM, **vjlewington@hotmail.com** or visit **http://www.eanm.org/eanm.php?kopf=head/hd_calendar.html&worte=calendar/calendar.php**

5th International Conference of Yugoslav Nuclear Society (YUNS) - 2004

The Conference will be held **September 27-30, 2004**, at the Chamber of Commerce of the Republic of Serbia, Belgrade, Serbia & Montenegro. For more information visit **http://www.vin.bg.ac.yu/YUNS/Yunsc2004.html**.

12th International Conference on the Physics of Highly Charged Ions

HCI-2004 will be the 12th conference in an international series taking place every two years around the world. This year's conference will be in Vilnius, Lithuania, **September 6-10, 2004.** Born in Stockholm in 1982, HCI became a major forum for the presentation and discussion of important new research results in the physics of highly charged ions. The conference will continue to emphasize basic, fundamental science at the atomic and molecular level, and its application to important technology challenges. Opportunity will be given to provide insights in other disciplines where HCI physics have a strong impact like nuclear physics, material science, radiation chemistry, radiobiology, etc.

Some important dates are: deadline for abstracts April 15, 2004; deadline for grant applications April 15, 2004; student housing reservation May 15, 2004; early registration deadline May 15, 2004. For more information, please email **hci2004@itpa.lt** or see the website: **http://www.itpa.lt/hci2004/**.

14th International Conference on Solid State Dosimetry

The 14th International Conference on Solid State Dosimetry will be held **June 27-July 2**, at Yale University, New Haven, CT. This conference is part of a series which began in 1965 at Stanford, and is held in different countries every three years.

This year, the conference returns to the US after an absence of 12 years. We have received over 320 abstracts from 46 countries and look forward to a lively and informative meeting.

Initially devoted to luminescence dosimetry, these conferences have become a traditional forum covering the current variety of processes, methods and applications of radiation measurements.

The peer-reviewed proceedings of the conference, summarizing the state of the art of radiation measurements with solid state techniques, will be published in *Radiation Protection Dosimetry* and each participant will receive a copy.

More information, on-line participant registration, and hotel reservations are available at: **http://www.ssd14.org/**. The deadline for early registration at a lower fee is May 15.

16th American Nuclear Society Topical Meeting on the Technology of Fusion Energy

The ANS Topical Meeting on the Technology of Fusion Energy will be held **September 14-16, 2004**, in Madison, Wisconsin. You are cordially invited to submit one-page abstract(s) describing work that is new, significant, and relevant to both magnetic and inertial fusion technologies. A Microsoft Word template that can be used to create the abstract is available on the TOFE website: **http://fti.neep.wisc.edu/tofe**.

The 16th Topical Meeting on the Technology of Fusion Energy (TOFE) will continue the tradition of stand-alone topical meetings originated in the early 1970's, continued through the 80's, and re-established in the year 2000 in Park City, Utah. The scope of the TOFE meeting is to provide a forum for sharing exciting new progress that has been made in fusion research as well as presenting the future of the national and worldwide fusion program.

The 2½ day program of the 16th TOFE meeting will have plenary, oral, and poster sessions, including a mix of invited oral papers and a significant number of contributed oral and poster papers. Key deadlines follow: one-page abstracts (May 1, 2004); nominations for ANS-FED awards (May 31, 2004); notification to authors (June 1, 2004); early registration deadline (August 10, 2004); hotel reservation cutoff date (August 10, 2004); full papers due at the meeting (September 14, 2004).

International Conference on Nuclear Data for Science and Technology "ND2004"

The International Conference on Nuclear Data for Science and Technology will be held **September 26-October 1, 2004,** in Santa Fe, New Mexico. This is an OECD-Nuclear Energy Agency Conference, which is held approximately every 3 years. Recent conferences in this series were held in Antwerp (1982), Santa Fe (1985), Mito (1988), Jüelich (1991), Gatlinburg (1994), Trieste (1997) and Tsukuba (2001). This International Conference focuses on nuclear data, their production, dissemination, testing and application. The data are produced through both experimental and theoretical models; they are compiled and evaluated to form data libraries for use in applications; and they are tested through benchmark experiments and a very wide range of applications. This Conference includes all of these activities with the goal of improving nuclear data for applications including fission and fusion energy, accelerator driven systems, accelerator technology, spallation neutron sources, nuclear medicine, environment, space, non-proliferation, nuclear safety, astrophysics and cosmology, and basic research. Please see the web site for more information: **http://t16web.lanl.gov/nd2004/**.

MCNP Courses

Registration: **http://www-xdiv.lanl.gov/x5/MCNP/registration.html**
MCNP home page: http://www-xdiv.lanl.gov/x5/MCNP/index.html
LANL contact: **selcow@lanl.gov**
European contact: **sartori@nea.fr**

June 1-4	Introductory	Los Alamos, NM

Introductory classes are for people who have little or no experience with MCNP. This class surveys the features of MCNP so the beginning user will be introduced to the capabilities of the program, and will have hands-on experience at running the code to solve simple problems. Course topics include Basic Geometry, Source Definitions, Output (Tallies) Specification and Interpretation, Advanced

Geometry (repeated structures specification), Variance Reduction Techniques, Statistical Analysis, Criticality, Plotting of Geometry, Tallies, and Particle Tracks, and Neutron/Photon/Electron Physics.

The intermediate to advanced class will be held for people who have used MCNP and want to extend their knowledge and understanding of the code system.

The class will be based on MCNP5 and will cover the new capabilities of version 5. Attendees may elect to order the new package from RSICC.

The other capabilities of MCNP will also be covered, including basic and advanced geometry, source definitions, tallies, data, variance reduction, statistical analysis, criticality, plotting of geometry, and particle tracks, neutron/photon/electron physics.

All classes provide interactive computer instruction. Time will be available to discuss individual questions and problems with MCNP experts or to pursue in more detail topics mentioned in the talks. Please note that other classes are offered based on MCNP. The classes mentioned here are the only ones that are taught by the people who develop and write MCNP.

MCNPX Workshops

Lead Teachers: Drs. John Hendricks, Gregg McKinney, Laurie Waters
Organizer: HQC Professional Services Contact: **bill@mcnpxworkshops.com**
More Information: **http://mcnpxworkshops.com** MCNPX homepage: **http://mcnpx.lanl.gov**

June 7-11	Introductory	Santa Fe, NM
July 12-16	Intermediate	Houston, TX

MCNPX is the LANL all-particle, all-energy (eV-TeV) Monte Carlo transport code based on MCNP4C, LAHET, CEM, etc. MCNPX has been in active development since 1995, sponsored by the particle accelerator community. It has now become an accepted tool for a broad range of applications by nuclear engineers, physicists, and scientists. The MCNPX development effort has expanded the use of the Los Alamos tools to applications such as APT, waste transmutation, accelerator shielding and health physics, particle beam cancer therapy, space shielding and cosmic ray analysis, single event effects in semiconductors, radiography, and more detailed analysis of the effects of light and heavy ions in matter. In addition, the entire functionality of MCNP4C is retained. New variance reduction and data analysis techniques, many adapted from high-energy accelerator methodologies, have also been added, such as the extensive "mesh tally" capability which allows up to 3-d plotting of particle tracks, fluence and fluence-derived quantities, energy deposition, next event estimator generation contributions and particle sources.

The workshops include hands-on instruction, generally on PC Windows machines. Subject to participant export approval for the MCNPX beta test team, participants will be able to access the Fortran-90 version of MCNPX 2.4, the LA150 (150 MeV) cross-section data for over 40 isotopes for incident neutrons and protons and 12 for photonuclear interactions, and a notebook of viewgraphs. Follow-up consultation for class participants will be provided.

Classes are taught by experienced MCNPX code developers and instructors. More information on code versions and capabilities is available at MCNPX Workshops web site **http://mcnpxworkshops.com**.

Practical MCNP for the HP, Medical Physicist, and Rad Engineer

DATES: **June 7-11, 2004**
FEE: $1,450 per person

PLACE: The MESA Complex, Room 130, University of New Mexico-Los Alamos Campus

Monte Carlo type calculations are ideally suited to solving a variety of problems in radiation protection and dosimetry. This course is aimed at the health physicist, medical physicist, and rad engineer with no prior experience with Monte Carlo techniques. The focus is almost entirely on the application of MCNP™ to solve a variety of practical problems in radiation shielding and dosimetry. The intent is to "jump start" the student toward using MCNP productively. Extensive interactive practice sessions are conducted on a personal computer. Topics will include an overview of the MCNP 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 comprehensive class manual and a diskette containing all of the practice problems. This course has been granted 32 Continuing Education Credits by the AAHP, and 4.5 CM points by the American Board of Industrial Hygiene. The course is offered by the Health Physics Measurements Group at the Los Alamos National Laboratory and is co-sponsored by RSICC.

Registration is available online at: **http://drambuie.lanl.gov/~esh4/mcnp.htm**. Make checks payable to the University of California (checks must be in U.S. dollars on a U.S. bank) and mail together with name, address, and phone number to: Los Alamos National Laboratory, Group HSR-4, MCNP Class, David Seagraves, Mail Stop J573, Los Alamos, NM 87545.

Inquiries regarding registration and class space availability should be made to David Seagraves, 505-667-4959, fax: 505-665-7686, e-mail: **dseagraves@lanl.gov**. Technical questions may also be directed to Dick Olsher, 505-667-3364; e-mail: **dick@lanl.gov**.

Please note that this course is separate from and independent of the courses being offered by the MCNP and MCNPX Teams at LANL.

Short Courses on Monte Carlo Analysis and Nuclear Criticality Safety

The Department of Nuclear Engineering at the University of Tennessee-Knoxville is offering two short courses for radiation transport and criticality safety specialists during Tennessee Industries Week (TIW-39), **August 9-13, 2004.**

Engineers, scientists, and technical managers who wish to increase their knowledge and understanding of nuclear criticality safety will be interested in the criticality safety course, which also runs for five days. The topics covered in the course are based primarily on the experience of the five instructors which totals over 120 years of nuclear criticality safety related experience. Such a wealth of experience needs to be shared with the criticality safety community including both new professionals in the field as well as experienced professionals.

Monte Carlo is often the method of choice to solve complex problems in nuclear criticality safety and radiation shielding. To use Monte Carlo effectively the analyst must understand the theoretical and computational fundamentals of the method, as well as the computational options available in particular computer tools. Also, it is sometimes advantageous to create new special-purpose Monte Carlo programs to solve particular problems rather than use an existing program. The Monte Carlo course runs for five days.

The deadline for registration is July 23, 2004. Classes are limited in size and will be filled on a first-come first-serve basis. For additional information on these and other courses offered during TIW-39, contact Kristin England at the University of Tennessee, phone (865) 974-5048, email **kengland@utk.edu**, url **http://www.engr.utk.edu/nuclear/TIW.html**.

Workshop on the DOORS Particle Transport Code Package

A five-day, hands-on workshop* on the Discrete Ordinates of Oak Ridge System (DOORS**) particle transport code package is offered **June 7-11, 2004**, at the Pennsylvania State University, University Park campus, at State College, Pennsylvania.

The workshop will cover:

Theoretical foundations of transport theory,

The two- and three-dimensional transport codes DORT and TORT, respectively

Several of the peripheral codes in DOORS, and

The mesh generation and visualization code package BOT3P** (produced by ENEA FIS-NUC, Bologna, Italy)

Instruction will take place in a computer laboratory where participants will be able to immediately and extensively apply the material presented. Attendees will benefit by learning:

How to solve neutral particle transport problems, with examples from the reactor physics and shielding areas, using DORT, TORT, and DOORS auxiliary codes.

How to set up input files.

How to interpret code output and visualize the solution.

The many powerful options and computational tools in the DOORS package.

Attendees should have elementary theoretical background in transport theory and must be able to function in a Linux environment, including file editing and transferring across computers.

All instruction will be provided by:

Dr. Yousry Y. Azmy, Professor of Nuclear Engineering, Penn State University: Dr. Azmy led the TORT development effort at Oak Ridge National Laboratory since 1995; he has extensive experience in the development and use of the codes comprising the DOORS package, and is well versed in the use of the BOT3P package.

Dr. Allen Barnett, Radion Technologies: Dr. Barnett has 16 years of experience with the use and development of neutral particle transport methods and codes, including the DOORS package.

To ensure effective instruction, enrollment is limited to the first 20 paid registrations. The workshop registration fee is $1,600. All registrations must be received by May 21, 2004.

For more information on the workshop, travel to State College, accommodations, and for a registration form, please visit the DOORS Workshop web site at: **http://www.engr.psu.edu/cde/doorsworkshop** or contact Yousry Y. Azmy at (814) 865-0039, or e-mail **yya3@psu.edu**.

Since the workshop is scheduled the week prior to the ANS Summer Meeting in Pittsburgh and since Pittsburgh is a relatively easy three-hour drive from State College, participants may be able to combine travel plans to the two events.

*Cosponsored by Pennsylvania State University, the Radiation Safety Information Computational Center, and the Nuclear Energy Agency Data Bank.

** Availability of the DOORS and BOT3P packages is through the Radiation Safety Information Computational Center (RSICC), 865-574-6176, **pdc@ornl.gov**, url **http://rsicc.ornl.gov**.

2005 Conferences

Monte Carlo 2005 Topical Meeting

Monte Carlo 2005 will be held **April 17-21, 2005,** (Sunday-Thursday). The theme of the conference will be "The Monte Carlo Method: Versatility Unbounded in A Dynamic Computing World".

The conference site is the Chattanooga Marriott and Convention Center in Chattanooga, Tennessee. The conference will be hosted by the American Nuclear Society (ANS) Oak Ridge/Knoxville Section, with ANS Radiation Protection and Shielding Division (RPSD) as the sponsoring division and Mathematics and Computations Division (MCD) as a co-sponsor. Co-sponsors will also include Oak Ridge National Laboratory (ORNL), Radiation Safety Information Computational Center (RSICC) and the Organization for Economic Cooperation and Development (OECD) Nuclear Energy Agency Data Bank (NEADB).

The Monte Carlo method and its applications have been frequently addressed at several major conferences and workshops organized in recent years in the area of nuclear applications. Monte Carlo topics have included radiation shielding, radiation physics, medical physics, and high energy physics. Significant developments have taken place in computational and data issues, resulting in state-of-the-art computer codes and tools. Monte Carlo 2005 is the next in a series devoted to the topic, following Monte Carlo 2000 which was held in Lisbon, Portugal, in October 2000.

Conference topics will include: Methods Advancements (Physics) (proton transport, neutron transport, gamma transport, electron transport, heavy ion transport); Nuclear Data Advancements (proton transport, neutron transport, gamma transport, electron transport, heavy ion transport); Mathematical and Computational Advances (experiments & benchmarks, mathematical advances, computational advances, visualization); Applications (reactor, medical, accelerator, neutron science, dosimetry, shielding, fuel cycle, waste management, space & aviation, fusion, criticality safety, non-nuclear applications).

The website is **http://MonteCarlo2005.org**. Full papers are due September 10, 2004. For information contact Bernadette Kirk (**kirkbl@ornl.gov**, 865-574-6176), General Chair, or Jeff Johnson (**johnsonjo@ornl.gov**, 865-574-5262), Technical Chair.

Twelfth International Symposium on Reactor Dosimetry

The Twelfth International Symposium on Reactor Dosimetry will be held **May 8-13, 2005,** in Gatlinburg, Tennessee.

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.

This Symposium is jointly sponsored by ASTM International, the European Working Group on Reactor Dosimetry (EWGRD), and the Atomic Energy Society of Japan (AESJ). It is organized by ASTM Committee E10 on Nuclear Technology and Applications and EWGRD.

The Symposium will be organized into oral and poster presentations, informal round-table workshops and tutorials. The meeting language will be English. No translations will be provided.

All papers presented at the Symposium will be subject to peer-review before acceptance for publication in the on-line Journal of ASTM International. Registrants will receive a complimentary CD of the papers presented at the Symposium. For more information visit the website at: **http://reactordosimetry.com/**.

CALENDAR

June 2004

Practical MCNP for the HP, Medical Physicist, and Rad Engineer, June 7-11, 2004, Univ. of New Mexico, Los Alamos, NM. Contact: David Seagraves, (tel 505-667-4959, fax 505-665-7686, e-mail **dseagraves@lanl.gov**. Technical questions may also be directed to Dick Olsher, 505-667-3364; e-mail **dick@lanl.gov**, url **http://drambuie.lanl.gov/~esh4/mcnp.htm**).

MCNPX Introductory Workshop, June 7-11, 2004, Santa Fe, NM. Contact: Bill Hamilton (tel 505-455-0312, email **bill@mcnpxworkshops.com**, url **http://mcnpxworkshops.com** for details).

DOORS Particle Transport Code Package Workshop, June 7-11, 2004, State College, PA. Contact: Yousry Azmy (tel 814-865-0039, email **yya3@psu.edu**, url **http://www.engr.psu.edu/cde/doorsworkshop**).

July 2004

MCNPX Intermediate Workshop, July 12-16, 2004, Houston, TX. Contact: Bill Hamilton (tel 505-455-0312, email **bill@mcnpxworkshops.com**, url **http://mcnpxworkshops.com** for details).

September 2004

1st International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry, Sept. 4-8, 2004, Helsinki, Finland. Contact: Michael Lassmann or Val Lewington, (emails **lassmann@ nuklearmedizin.uni-wuerzburg.de**; **vjlewington@ hotmail.com**).

16th American Nuclear Society Topical Meeting on the Technology of Fusion Energy, Sept. 14-16, 2004, Madison, WI. (url **http://fti.neep.wisc.edu/tofe**).

International Conference on Nuclear Data for Science and Technology "ND2004", Sept. 26-Oct. 1, 2004, Santa Fe, NM. (Contact: **http://t16web.lanl.gov/nd2004/**).

5th International Conference of Yugoslav Nuclear Society (YUNS) - 2004, Sept. 27-30, 2004, Belgrade, Serbia & Montenegro. Contact: Dr. Milan Pesic, (tel 381-11-245-82-22/ext. 681, email **mpesic@vin.bg.ac.yu**, url **http://www.vin.bg.ac.yu/YUNS/index.htm**).

October 2004

11th World Congress on Neutron Capture Therapy (ISNCT-11), Oct. 11-15, 2004, Boston, MA. Contact: Robert G. Zamenhof (tel 617-636-1681, fax 617-636-5867, email **rzamenhof@tufts-nemc.org**, url **http://meetingsandconferences.com/ISNCT-11/**).

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Monte Carlo 2005 Topical Meeting, Apr. 17-21, 2005, Chattanooga, TN. Contact: Bernadette Kirk (tel 865-574-6176, fax 865-241-4046, email **kirkbl@ornl.gov**, url **http://meetingsandconference.com /MonteCarlo2005**).

ACCESSION OF NUCLEAR SYSTEMS LITERATURE

The nuclear systems literature (shielding, safety, materials) cited below has been reviewed and placed in the RSICC Information Storage and Retrieval Information System (SARIS), now searchable on the RSICC web server (**http://www-rsicc.ornl.gov/SARIS.html**). We now include medical physics in addition to material science, radiation dosimetry, radiation safety, reactor dynamics, reactor safeguards, risk assessment, waste management, fuel cycle, fusion and plasmas, high energy particle transport, and shielding. This early announcement is made as a service to the nuclear sciences community. Copies of the literature are not distributed by RSICC. They may generally be obtained from the author or from a

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