
Radiation Safety Information Computational Center



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“Guard within yourself that treasure kindness. Know how to give without hesitation, how to lose without regret, how to acquire without meanness. -- George Sand

The September 2003 Edition of the International Handbook of Evaluated Criticality Safety Benchmark Experiments

The September 2003 edition, of the *International Handbook of Evaluated Criticality Safety Benchmark Experiments* is scheduled to be ready for distribution on CD-ROM near the end of September. Twenty newly approved evaluations are included in this version in addition to all previously approved evaluations. Editorial and technical corrections have been made to some of the previously approved evaluations. Revision status of each individual evaluation is noted at the bottom of each page. In addition, a revision status table, noting specific technical revisions made to each evaluation, is included on the CD-ROM in a directory designated “Revision”. For questions or comments contact J. Blair Briggs by telephone (208) 526-7628, fax (208) 526-2930, or by email at bbb@inel.gov.

'Father of H-bomb' Teller dies at age 95

Associated Press, September 10, 2003

Edward Teller, 95, who played a key role in U.S. defense and energy policies for more than half a century and was dubbed the "father of the H-bomb" for his enthusiastic pursuit of the powerful weapon, died recently, a spokesman for Lawrence Livermore Laboratory said. Teller died near the Hoover Institute, where he served as a senior research fellow.

He was one of three scientists who in 1939 encouraged Einstein to alert President Franklin Roosevelt that the power of nuclear fission - the splitting of an atom's nucleus - could be tapped to create a devastating new weapon. Two years later, even before the first atom bomb was completed, fellow scientist Enrico Fermi suggested that nuclear fusion - fusing rather than splitting nuclei - might be used for an even more destructive explosive, the hydrogen bomb. Teller quickly took to the idea.

Teller's enthusiasm and pursuit of such a bomb - he called it the "Super" - won him the title, "father of the H-bomb," a term he said he hated. The first megaton H-bomb was exploded in 1952.

He exerted a profound influence on America's defense and energy policies, championing the development of the atomic and hydrogen bombs, nuclear power and the Strategic Defense Initiative.

Among honors he received were the Albert Einstein Award, the Enrico Fermi Award and the National Medal of Science.

Changes to the Computer Code and Data Collection

One new and one newly frozen package and were added to the computer code collection this month.

CCC-638/TART2002

OP SYS: Unix, Linux, Windows & Mac

Language: Fortran & C

Computers: Workstations, PC & Mac

Format: Unix, Windows & Mac

Lawrence Livermore National Laboratory, Livermore, California, contributed a newly frozen version of this coupled neutron-photon Monte Carlo transport code designed to use three dimensional (3-D) combinatorial geometry. Neutron and/or photon sources as well as neutron induced photon production can be tracked. It is a complete system to assist you with input preparation, running Monte Carlo calculations, and analysis of output results. TART2002 is also incredibly FAST. Use of the entire system can save you a great deal of time and energy.

TART2002 extends the general utility of the code to even more areas of application than available in previous releases, by concentrating on improving the physics, particularly with regard to improved treatment of neutron fission, resonance self-shielding, molecular binding, and extending input options used by the code. Several utilities are included for creating input files and displaying TART results and data.

TART2002 uses the latest ENDF/B-VI, Release 8, neutron data. For neutron interaction, the 700 group neutron data were derived using a combination of ENDF/B-VI, Release 8, and ENDL data. The 700 group structure extends from 10-5 eV up to 1 GeV. Presently nuclear data is only available up to 20 MeV, so that only 616 of the groups are currently used. For photon interaction, 701 point photon data were derived using the Livermore EPDL97 file. The new 701 point structure extends from 100 eV up to 1 GeV and is currently used over this entire energy range. The older data are no longer supported by TART.

TART2002 completely supersedes all older versions of TART, and it is strongly recommended that one use only the most recent version of TART2002 and its data files. Check author's homepage for related information: <http://www.llnl.gov/cullen1/>.

TART2002 is designed to run on any computer. It is presently implemented on Cray, various Unix workstations, IBM-PC (Windows and Linux), and Power MAC. For use on IBM-PC and Power MAC, the entire system is distributed in executable form, so that no compiler or loader is required on these systems. Since executables are distributed for these computers, Fortran source code is not included. Either the ABSOFT or G77 Fortran compiler was used to create included executables, which run under 32-bit systems. On all other computers, a Fortran compiler which supports Cray-like pointers is required. In addition, on Unix workstations the graphics portion of the system requires a C compiler.

The package is distributed on CD in MAC, Windows and Unix formats. The CD contains the source codes for Unix, executables for MAC and IBMPC, data files and test cases for use on a variety of computers. Installation and verification instructions for each type of computer are also included with the package. References: UCRL-ID 126455, Rev. 4 (June 2003), UCRL-ID 130839 (2000) and UCRL-MA-121319 (July 1995). Fortran and C; Cray, Unix workstations (Sun, SGI, HP, DEC-Alpha, Meiko, IBM, etc.), IBM-PC (Windows or Linux) and Power MAC (C00638MNYCP05).

PSR-523/DEPLETOR V. 2

OP SYS: Solaris & Windows

Language: Fortran 90

Computers: Sun & PC

Format: Unix tar

Purdue University, West Lafayette, Indiana, contributed this code system that provides depletion capability for the Purdue Advanced Reactor Core Simulator (PARCS), a computer code for predicting the transient behavior of light water reactor cores. PARCS solves the steady-state and time-dependent neutron diffusion equation in three-dimensional geometry to obtain the neutron flux distribution. Because PARCS solves the eigenvalue problem and is capable of performing criticality searches, it can provide the neutron flux distribution required to perform core depletion analysis. **PARCS is not included in this code package.**

DEPLETOR provides the following five functions:

- read in the macroscopic cross sections from PMAXS, the XS file prepared by the interface code GENPXS
- calculate region wise macroscopic cross sections as a function of the history state, such as burnup, moderate density history, control rod history
- transfer the region wise macroscopic cross sections to PARCS,
- obtain the region wise fluxes from PARCS,
- calculate region wise history increment at each step based on fluxes

DEPLETOR generates the cross-sections at each burnup state and transfers them to PARCS, which then solves the diffusion equations with the given macroscopic cross sections and transfers the resulting flux distribution to DEPLETOR. In order to minimize the changes to the PARCS code, DEPLETOR was developed and will be maintained as a separate code. All information transfer between PARCS and DEPLETOR is performed using the standard message passing interface software PVM.

PVM and PARCS are not included in this distribution. PARCS is available through the U. S. Nuclear Regulatory Commission. Information on PVM can be found at:

http://www.csm.ornl.gov/pvm/pvm_home.html

The code is written in Fortran 90 and has been used on Sun workstations and on Pentium computers running Windows. PVM is required for information transfer between PARCS and DEPLETOR. Executables provided by the developers using compilers listed below are included in the distribution. The PC executable was created with Compaq Visual Fortran 6.1A under Windows 2000. The Sun compiler 6.0 was used to create the Sun executable. Included are a brief report, the DEPLETOR source code, DEPLETOR executables for PC and Sun, makefiles and sample problem input and output. The files are transmitted in a GNU compressed Unix tar file. Windows users may extract the files using WinZIP 8.0 or newer. Reference: Informal Report Purdue University, (May 2003). Fortran 90; Sun and Personal Computers running Windows (P00523MNYCP00).

Monthly Code Focus

As years have gone by many different codes and applications have been sent to RSICC for stewardship. We currently have over 1700 analytical code and data packages and distribute as many each year to 73 countries in the world. To help 'categorize' each package, we have developed a database of 'Subject Categories' to attach applications to the packages at RSICC. Doing so requires investigation into each code package, user feedback from end use statements, and extensive RSICC staff experience and analysis so that we can deliver useful information each month on the 30 different categories we have identified thus far. Links to the package abstracts are embedded into the WWW version of the RSICC Newsletter. Feedback from our Newsletter community is very valuable so please direct your comments and/or suggestions to **PDC@ORNL.GOV**. Many packages in the RSICC code collection are in this subject

category. A few are highlighted here for your review. **October's code focus is Decommissioning, Decontamination, and Reutilization.**

CECP-BWR
CECP-PWR
COMPASS 1.0.0
MYRA

RATAF
RECAP
SECPOP90

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 are listed alphabetically following the table.

Condensed Table of Conferences

Name of Conference	Date and Location	Web Site	Abstract/Paper Submission Date
6th International Symposium on ESR Dosimetry and Applications	Oct. 12-16, 2003 Campos do Jordão, Brazil	http://www.if.usp.br/VI_ESR_2003/	passed
10th International Training Course/Workshop on "Methodologies for Particle Transport Simulation of Nuclear Systems"	Oct. 13-17, 2003	http://ufttg.nuceng.ufl.edu/workshop2003/workshop2003.html	
7th International Conference on Nuclear Criticality Safety (ICNC2003)	Oct. 20-24, 2003 Tokai-mura, Japan	http://www.icnc.jp/	passed
International Symposium on Pulsed Neutron Science and Instruments (IPN2003)	Oct. 27-30, 2003 Tsukuba, Japan	http://neutron-www.kek.jp/Symposia/index.html	
9th International Symposium on Radiation Physics (ISRP-9)	Oct. 27-31, 2003 Cape Town, South Africa	www.medrad.tlabs.ac.za/isrp9.htm	

Name of Conference	Date and Location	Web Site	Abstract/Paper Submission Date
Council on Ionizing Radiation Measurements and Standards (CIRMS)	Oct. 27-29, 2003 Gaithersburg, Maryland	http://www.cirms.org	passed
11th International Conference on Fusion Reactor Materials (ICFRM-11)	Dec. 7-12, 2003 Kyoto, Japan	icfrm.iae.kyoto-u.ac.jp	passed
PHYSOR 2004	Apr. 25-29, 2004 Chicago, Illinois	www.physor2004.anl.gov	Oct. 3, 2003
Current Topics in Monte Carlo Treatment Planning	May 3-5, 2004 Montreal, Canada	http://mctp.medphys.mcgill.ca	Nov. 1, 2003
International Conference on Radiation Shielding (ICRS-10) and Topical Mtg. on Radiation Protection & Shielding (RPS 2004)	May 9-14, 2004 Funchal, Madeira Island (Portugal)	http://www.itn.mces.pt/ICRS-RPS/	
5th International Conference on Nuclear Option in Countries with Small and Medium Electricity Grids	May 16-20, 2004 Dubrovnik, Croatia	http://hnd.zvne.fer.hr/Dubrovnik2004	
International Conference on Nuclear Data for Science and Technology "ND2004"	Sept. 26-Oct. 1, 2004 Santa Fe, New Mexico	http://t16web.lanl.gov/nd2004/	abst: 12/15/03 paper: 9/26/04

10th International Workshop/Training Course on Methodologies for Particle Transport Simulation of Nuclear Systems (Design, Dosimetry & Shielding)

This workshop which will be held **Oct. 13-17, 2003**, in Gainesville, Florida, combines lectures on transport theory methods (deterministic and Monte Carlo) with hands-on practice in using standard computer codes (DORT/TORT, MCNP) available through RSICC, as well as the A3MCNP (Automated Adjoint-Accelerated MCNP) and PENTRAN (3-D Parallel Sn) Code systems developed by the UFTTG groups. (Participants will receive the executable form of the PENTRAN code system.) The discussions on the transport equation and its adjoint (or "importance" equation) is essential for understanding of the automated variance reduction techniques developed for MCNP. For the hands-on exercises, the participants receive sample input files for real-life problems, which are solved via both deterministic and Monte Carlo methods. For further information, please visit the workshop website at <http://ufttg.nre.ufl.edu/workshop2003/workshop2003.html> or send email to Prof. Alireza Haghighat at haghighat@ufl.edu.

Cross Section Evaluation Working Group (CSEWG)

The Cross Section Evaluation Working Group (CSEWG) meeting will be held at Brookhaven National Laboratory, **November 4-6, 2003**. Members of the CSEWG meet annually to talk about new nuclear data evaluations and benchmark tests and make recommendations for new nuclear data evaluations to be included in the US ENDF, Evaluated Nuclear Data File.

Current Topics in Monte Carlo Treatment Planning

This workshop will be held at McGill University, Montreal, Canada, from **May 3-5, 2004**, and aims to bring together medical physicists and researchers to discuss development, clinical implementation and clinical evaluation of Monte Carlo treatment planning techniques in radiotherapy. The meeting will have both invited speakers and proffered contributions and is designed to have plenty of opportunity for informal and in-depth discussions.

For details regarding registration, program, invited speakers, abstract submission, etc, please consult our workshop website: <http://mctp.medphys.mcgill.ca>. Early registration is encouraged as the number of participants will be limited to around 100.

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 in Antwerp (1982), Santa Fe (1985), Mito (1988), Jülich (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 experiment 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/>.

5th International Conference on Nuclear Option in Countries with Small and Medium Electricity Grids

The 5th International Conference on Nuclear Option in Countries with Small and Medium Electricity Grids will be held in Dubrovnik, Croatia, **May 16-20, 2004**.

In view of the good response and success of the previous Dubrovnik conferences devoted to the needs and interests of countries with small or medium nuclear systems and electricity grids, the Dubrovnik 2004 conference will serve the same general purpose, with concentration on the topics which invited most interest in the previous conference. The Conference will consider the nuclear option from the point of view of resources, costs, technological, organisational and educational requirements, and environmental advantages. It will also focus on the matters related to operational safety, fuel cycle, waste management and decommissioning.

The important goal of the Dubrovnik 2004 conference is to serve as a forum to promote regional co-operation and exchange of experience in use of nuclear power and fuel cycle facilities among the small or medium European countries interested in the nuclear option.

For updated information please visit the Conference website <http://hnd.zvne.fer.hr/> **Dubrovnik2004**, or contact the Conference secretariat at hnd2004@fer.hr.

International Conference on Radiation Shielding (ICRS-10) and Topical Meeting on Radiation Protection & Shielding (RPS 2004)

The Tenth International Conference on Radiation Shielding (ICRS-10) and the Thirteenth Topical Meeting of the Radiation Protection and Shielding Division of the American Nuclear Society (RPS 2004) will be held **May 9-14, 2004**.

The local organization has been assigned to ITN (the Nuclear and Technological Institute, in Lisbon), a laboratory of the Portuguese Ministry of Science and Higher Education. At the international level, the joint organization is co-sponsored by the Nuclear Energy Agency (NEA) of the Organization for Economic Co-operation and Development (OECD), the Radiation Protection and Shielding Division (RPSD) of the American Nuclear Society (ANS), and the Radiation Safety Information Computational Center (RSICC, Oak Ridge National Laboratory).

It is anticipated that this will be the most important event in the areas of Radiation Shielding and Radiation Protection during 2004. For further information please refer to the Conference website at the following URL <http://www.itn.mces.pt/ICRS-RPS>. Please don't hesitate to contact the Conference Secretariat at icrs-rps@itn.mces.pt.

In addition, if you would be interested in serving on the Scientific Program Committee, and contribute to the success of the meeting by either submitting or encouraging colleagues to submit papers, and participating in the technical review process, please contact the Conference Secretariat at the above email and provide your name, organization, email and topics of interest or expertise. The Organizing Committee welcomes your comments and suggestions to make your meeting a success.

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

2003

Oct. 14-17	Intermediate/Advanced	Los Alamos, NM
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2004

Feb. TBA	Introductory	Los Alamos, NM
Apr. 19-23	Intermediate/Advanced	Tokyo, Japan
June TBA	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 receive the new package. If you have previously received an older registered version of MCNP from RSICC, you may request that the MCNP5 package be sent to you at no charge. If you have not received an older version of MCNP from RSICC, you will be charged the applicable transmittal fee.

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.

MCNP Visual Editor Classes

The Visual Editor is a powerful visualization tool that can be used to rapidly create complex Monte Carlo N Particle (MCNP5) geometry models, including lattices, universes, fills, and other geometrical transformations. The Visual Editor can:

- Display MCNP5 geometries in multiple plot windows,
- Create surfaces and cells to build a geometry,
- Create materials using the local xsdir file,
- Store commonly used materials in a material library,
- Sub-divide large cells into smaller cells,
- Create cells containing universes and lattices,
- Interactively set cell importances from the plot window, and
- Display source points and collision points in the plot window.

Training class is scheduled **March 15-19, 2004**, in Richland, Washington. The class will focus on the use of the visual editor, with an overview of MCNP. The fifth day is optional and will focus on using the Visual Editor and MCNP to do some example problems.

The class combines teaching on MCNP physics, along with instructions on how to use the Visual Editor. Computer demonstrations and exercises will focus on creating and interrogating input files with the Visual Editor. Demonstrations of advanced visualization work using MCNP will also be made. The class 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. For a more detailed description of this course, [click here](http://www.mcnpvised.com/train.html). Further information on this class can be located at: <http://www.mcnpvised.com/train.html>, or by contacting Randy Schwarz (email randyschwarz@mcnpvised.com).

MCNPX Workshops

Lead Teachers: Drs. John Hendricks, Gregg McKinney, Laurie Waters

Organizer: HQC Professional Services

Contact: bill@solutionsbyhqc.com

More Information: <http://mcnpxworkshops.com>

MCNPX homepage: <http://mcnpx.lanl.gov>

2003

October 6-10	Intermediate	Stuttgart, Germany
November 17-21	Intermediate	Tokyo, Japan

2004

January 12-16	Introductory	Las Vegas, NV
March 8-12	Intermediate	Santa Fe, NM
May 3-7	Intermediate	Lisbon, Portugal
June 14-18	Intermediate	Houston, TX
July 12-16	Introductory	Santa Fe, NM

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>.

PHYSOR 2004

The Chicago Section of the American Nuclear Society is pleased to announce that it will host the PHYSOR-2004 Topical Meeting, **April 25-29, 2004**, in Chicago, Illinois. The meeting is co-sponsored by the Reactor Physics Division of the ANS, OECD Nuclear Energy Agency, European Nuclear Society, Canadian Nuclear Society, and the Brazilian National Atomic Energy Commission. The conference will be held at the Hyatt Regency in downtown Chicago.

The title for the meeting is "The Physics of Fuel Cycles and Advanced Nuclear Systems: Global Developments." The technical program will cover more than 15 topical focus areas; the deadline for submission of 1000-word summaries is October 3, 2003. You are invited to visit the meeting website at www.physor2004.anl.gov to obtain updated information and to download a copy of the meeting announcement. Contact: Ray Klann, Technical Program Co-Chair, at 630-252-4305 or klann@anl.gov.

SCALE KENO V.a Criticality Safety Course

The SCALE KENO V.a Criticality Course, **November 3-7, 2003**, will focus on KENO V.a and the associated criticality analysis sequences in CSAS. KENO V.a is a widely used 3-D multigroup Monte Carlo criticality safety code that has been in use for more than 15 years. KENO V.a is a fast, easy-to-use code that allows users to build complex geometry models using basic geometrical bodies of cuboids, spheres, cylinders, hemispheres, and hemicylinders. Two-dimensional color plots of the geometry model can be generated in KENO V.a or the model may be viewed using the KENO3D visualization tool. For further information, visit <http://www.ornl.gov/scale/trcourse.html#href1> or contact Kay Lichtenwalter, scalecoding@ornl.gov, 865-574-9213.

SCALE Source Terms & Shielding Course

The SCALE Shielding and Source Terms Course covers SAS2 and ORIGEN-ARP (depletion/source-term generation), SAS1/XSDRNPM (1-D neutron/gamma shielding), SAS4/MORSE-SGC (3-D Monte Carlo neutron/gamma shielding), and QADS/QAD-CGGP (3-D point kernel gamma shielding). The course will be **November 10-14, 2003**, and will feature the use of the SCALE Windows GUIs: OrigenArp for Windows, ORIGEN-S plotting utility PlotOPUS, and the ESPN shielding input processor for SAS4. For further information visit <http://www.ornl.gov/scale/trcourse.html#href1> or contact Kay Lichtenwalter, scalecoding@ornl.gov, 865-574-9213.

Short Course on "Introduction to Monte Carlo Treatment Planning"

Course Director: Charlie Ma, Ph.D. ; Course Coordinator: Jinsheng Li, Ph.D.
Contact information: Tel 215-728-5665, Fax: 215-728-4789; Email: js_li@fcc.edu
Webpage: http://www.fccc.edu/clinical/radiation_oncology/monte_carlo_course.html
Venue: Radiation Oncology, FCCC, Philadelphia, PA
Time: April 8-10, 2004

The course registration fee is \$1600, which covers the course materials, two lunches, two dinners and refreshments. A set of software is free for the attendee. Discount for students are available. Hotel information is available upon request.

The short course is designed to train future Monte Carlo RTP users and researchers in the use of Monte Carlo treatment planning software. The course will include didactic instruction and hands-on workshops. The course is specially suited for previous EGS4 and OMEGA/BEAM course participants, who want to expand their research into clinical RTP. A working knowledge of a Unix-based system is expected to run the Monte Carlo RTP software.

To facilitate instruction at the hands-on labs enrollment will be limited to 20 people. So please register early. Registration will be strictly on a first-come basis. Please contact with Dr. Jinsheng Li, at js_li@fcc.edu or see the website: http://www.fccc.edu/clinical/radiation_oncology/monte_carlo_course.html.

CALENDAR

October 2003

American Nuclear Society's Advances in Nuclear Fuel Management III Topical Meeting, Oct. 5-8, 2003, Hilton Head Island, SC. Contact: Youssef A. Shatilla (email shatilya@westinghouse.com, url <http://rpd.ans.org/nfm.htm>).

MCNPX Intermediate Workshop, Oct. 6-10, 2003, Stuttgart, Germany. Contact: Bill Hamilton (tel 505-455-0312, email registrar@mcnpxworkshops.com, url <http://mcnpxworkshops.com> for details; register through the [NEA](#)).

10th International Training Course/Workshop on Methodologies for Particle Transport Simulation of Nuclear Systems (Design, Dosimetry & Shielding), Oct. 13-17, 2003, Gainesville, FL. Contact: Prof. A. Haghghat (tel email haghghat@ufl.edu, url <http://www.nre.ufl.edu>).

7th International Conference on Nuclear Criticality Safety (ICNC2003), Oct. 20-24, 2003, Contact: Dr. Yoshinori Miyoshi (tel +81-29-282-6671; fax

+81-29-282-6798, email icnc03miyoshi@nucef.tokai.jaeri.go.jp, url <http://www.icnc.jp/>).

Council on Ionizing Radiation Measurements and Standards, Oct. 27-29, 2003, Gaithersburg, MD. Contact: Teresa Vicente (tel 3010-975-3883, fax 301-948-2067, teresa.vicente@nist.gov, url www.cirms.org).

International Symposium on Pulsed Neutron Science and Instruments (IPN2003), Oct. 27-30, 2003, Tsukuba, Japan. Contact: Makiko Sakai (tel 81-29-864-5625, fax: 81-29-864-5623, email:

sakai@nml.kek.jp url <http://neutron-www.kek.jp/Symposia/index.html>).

9th Triennial International Symposium in Radiation Physics, Oct. 27-31, 2003, Cape Town, South Africa. Contact: Dr. D. T. L. Jones (tel +27-21-843-1336, fax +27-21-843-3382, email Jones@tlabs.ac.za url www.medrad.tlabs.ac.za/isrp9.htm).

Satellite Workshop on UK-Japan Neutron Scattering (UKJ2003), Oct. 31-Nov. 1, 2003, Izura, Japan. Contact: Makiko Sakai (tel 81-29-864-5625, fax: 81-29-864-5623, email: sakai@nml.kek.jp, url <http://neutron-www.kek.jp/Symposia/index.html>).

November 2003

SCALE KENO V.a Criticality Safety Course, Nov. 3-7, 2003, Oak Ridge National Laboratory. Contact: Kay Lichtenwalter (tel 865-574-9213, email scalecoding@ornl.gov, url <http://www.ornl.gov/scale/trcourse.html#href1>).

SCALE Source Terms & Shielding Course, Nov. 10-14, 2003, Oak Ridge National Laboratory. Contact: Kay Lichtenwalter (tel 865-574-9213, email scalecoding@ornl.gov, url <http://www.ornl.gov/scale/trcourse.html#href1>).

ANS/ENS International Winter Meeting and Nuclear Technology Expo, Nov. 16-20, 2003, New Orleans, LA. Contact: (url <http://www.ans.org/meetings/>).

Radiation Transport Calculations Using the EGS Monte Carlo System, Nov. 17-20, 2003, Ottawa, Canada. Contact: Blake Walters (tel 613-993-2715, fax 613-952-9865, email bwalters@irs.phy.nrc.ca, url www.irs.inms.nrc.ca/inms/irs/papers/egsnrc/brochure.html).

MCNPX Intermediate Workshop, Nov. 17-21, 2003, Japan. Contact: Bill Hamilton (tel 505-455-0312, email registrar@mcnpxworkshops.com, url <http://mcnpxworkshops.com>).

December 2003

The 11th International Conference on Fusion Reactor Materials (ICFRM-11), Dec. 7-12, 2003, Kyoto, Japan. Contact ICFRM-11 secretariat (tel

+81-774-38-3597, fax +81-774-38-3467, email icfrm@iae.kyoto-u.ac.jp, url <http://icfrm.iae.kyoto-u.ac.jp>).

January 2004

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April 2004

PHYSOR 2004 Reactor Physics Topical Meeting, Apr. 25-29, 2004, Chicago, IL. Jointly sponsored by the Reactor Physics Division of the ANS and the Nuclear Energy Agency of the OECD and others. **Contact:** Ray Klann (tel 630-252-4305, email klann@anl.gov, url <http://www.physor2004.anl.gov/>).

May 2004

Current Topics in Monte Carlo Treatment Planning, May 3-5, 2004, McGill University, Montreal, Canada. Contacts: Jan Seutjens and Frank Verhaegen (tel 514-934-8052, url <http://mctp.medphys.mcgill.ca>).

MCNPX Intermediate Workshop, May 3-7, 2004, Lisbon, Portugal Contact: Bill Hamilton (tel 505-455-0312, Email registrar@mcnpxworkshops.com, url

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International Conference on Radiation Shielding (ICRS-10) and Topical Mtg. on Radiation Protection & Shielding (RPS 2004), May 9-14, 2004, Funchal, Madeira Island (Portugal). Contact: Conference Secretariat (email icrs-rps@itn.mces.pt, url <http://www.itn.mces.pt/ICRS-RPS>).

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June 2004

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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 documentation center such as the National Technical Information Service (NTIS), Department of Commerce, Springfield, Virginia 22161. For literature listed as available from INIS contact INIS Clearinghouse, International Atomic Energy Agency, P.O. Box 100, A-1400 Vienna.

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