Radiation Safety Information Computational Center

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"Will is character in action" -- William McDougall

Printable PDF file of this newsletter available at: **http://www-rsicc.ornl.gov/NEWSLETTER.html**.

Availability of Three NJOY/CALENDF PhD Projects

École Polytechnique de Montréal announces the availability of three PhD projects (including scholarship) at the Institute. The subjects are related to NJOY and CALENDF methodologies and involve programing in the DRAGON framework. The Fortran programing resulting from these projects will be released under the LGPL (Lesser General Public License) and will therefore be available worldwide. Each scholarship is $20,000.00 (Canadian dollars) plus the registration fees. The possible beginning dates are January 2003, May 2003, or September 2003. The lectures will be provided in French, but the thesis redaction could be performed in French or English. If you are interested in any of these projects, please send a curriculum vitae and a short motivation letter to Alain Hebert at **alain.hebert@polymtl.ca** before November 30. The web site of École Polytechnique is **www.polymtl.ca**. For more information, see **Alain's letter** in pdf format.

Available NRC Codes

One U.S. Nuclear Regulatory Commission (NRC) software package transferred from the Energy Science and Technology Software Center, Oak Ridge, Tennessee, to RSICC was processed this month. Please browse the computer code abstract available at RSICC's web site for more information on this package.

PSR-421/GCI

Changes to the Computer Code and Data Collection

Three changes were made to the computer code collection this month: one new package, one new software addition, and one correction.

CCC-467/ITS 3.0

OP SYS: Unix, Windows
Language: Fortran 77
Computers: Workstation, PC
Format: tar, self-extracting Windows

Experimental and Mathematical Physics Consultants, Gaithersburg, Maryland, contributed new PC executables for the Integrated TIGER Series. ITS3, originally contributed by Sandia National Laboratories, Albuquerque, New Mexico, permits a state-of-the-art Monte Carlo solution of linear time-integrated coupled electron/photon radiation transport problems with or without the presence of macroscopic electric and magnetic fields of arbitrary spatial dependence.

In this release, the PC version was updated with executables created with Lahey Fortran 90 and Fortran 95 because Lahey F77L3 executables in the previous release would not run under WindowsXP. The new executables were tested under WindowsXP and Windows2000. Batch and source files are included for those who wish to compile with either Lahey F90 or F95. The only changes were to facilitate execution under Windows.

The Unix codes were not modified. A Fortran 77 compiler is required on Unix systems. ITS runs on Cray computers under the UNICOS operating system, on IBM under MVS, on Vax under VMS, on IBM RISC 6000 under AIX, and on Sun under SunOS. The package is distributed on CD with a Unix tar file and a self-extracting compressed Windows file, which contain source codes, PC executables sample problem input and output. References: SAND91-1634 (March 1992), SAND92-0073, UC-705 (April 1992). Informal information file (2002). Fortran 77; Cray, IBM, Vax, Sun, IBM PC **(C00467/MNYCP/01).**

CCC-684/NRCDose 2.3.2

OP SYS: Windows
Language: Fortran
Computers: Pentium
Format: Windows

J. Stewart Bland Associates, Inc., Annapolis, Maryland, contributed a correction to this suite of NRC's computer codes used for evaluating routine radioactive effluents from nuclear power plants. The new release corrects a problem with the radionuclide source term dialog box in LADT.EXE. NRCDose2.3.2 users who received the C00684PC58602 release can request that the update be sent to them via e-mail. NRCDose includes LADTAP II, GASPAR II, and XOQDOQ with a Windows interface to facilitate ease of use. It is intended for modeling routine, normal effluents under annual average environmental conditions and should not be used for accident dose assessment.

NRCDose runs on Pentium computers. The distributed executables were created with Microsoft Fortran PowerStation (Standard Edition) Version 4.0. under the Windows operating system. Fortran source files are not included. The codes were tested under Windows 95, Windows 98, Windows NT 4.0 and Windows2000. The package is transmitted on CD in DOS format. References: "User's Guide," (November 14, 2000); NUREG/CR-4653, PNL-5907 (March 1987); NUREG/CR-1276, ORNL/NUREG/TDMC-1 (March 17, 1980); NUREG/CR-2919 (PNL-4380) (September 1982). Fortran; Pentium (C000684/PC586/03).

CCC-713/PENELOPE-MPI

OP SYS: AIX
Language: Fortran 90; C
Computers: IBM SP
Format: tar

Indiana University, Indianapolis, Indiana, contributed a modified version of this code system which performs Monte Carlo simulation of electron gamma-ray showers in arbitrary materials. The new PENELOPE-MPI release extends the capabilities of PENELOPE-2001 by providing for usage of MPI type parallel drivers and extends the original version's ability to read different types of input data sets such as voxel. The motivation is to increase the efficiency of Monte Carlo simulations for medical applications. The physics of the calculations were not changed, and the original documentation is still valid. PENELOPE-2001 (RSICC C00682MNYCP02; NEA-1525/05) was developed by the Universitat de Barcelona and Institut de Tècniques Energètiques, Universitat Politècnica de Catalunya, Barcelona, Spain, and the Universidad Nacional de Cordoba, Argentina.

PENELOPE performs Monte Carlo simulation of electron-photon showers in arbitrary materials.

Initially, it was devised to simulate the PENetration and Energy LOss of Positrons and Electrons in matter; photons were introduced later. The adopted scattering model gives a reliable description of radiation transport in the energy range from a few hundred eV to about 1GeV. PENELOPE generates random electron-photon showers in complex material structures consisting of any number of distinct homogeneous regions (bodies) with different compositions.

Penelope-MPI runs on IBM SP workstations under the AIX operating system. Fortran 90 and C compilers and the MPI library are required to build executables for the parallel version. The code was tested at RSICC on an IBM SP3 workstation with mpxlf90 and mpcc compilers. The package is transferred on a CD written in a GNU compressed Unix tar file which contains source files, test case input files, data files and documentation. Reference: ISBN:92-64-18475-9 (November 2001). Fortran 90, MPI; IBM-SP (C00713/IBMSP/00).

Monthly Code Focus

Nuclear Criticality Safety

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 'Main 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.

1DB	**MCNP4C2**	**REBUS3/VARIANT8**
3DDT	**NCSP-DAT**	**SCALE 4.4A**
DIF3D8-VARIANT8	**NESTLE 5.0.2**	**SLIDERULE 1.0**
KENO3D 2.00	**REBUS-PC 1.4**	**VIM 4.0**

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. More details are listed following the table.

Condensed Table of Conferences

Name of Conference	Time and Place	Web Site	Date of Abstract/Paper Submission
Computed Tomography: Patient Dose Symposium	Nov. 6-7, 2002 Arlington, Virginia	**http://www.ncrp.com**	n/a
48th Annual Radiobioassay and Radiochemical Measurements	Nov. 11-15, 2002 Knoxville, Tennessee	**www.bioassay.org/2002/**	July 15, 2002
SC2002	Nov. 16-22, 2002 Baltimore, Maryland	**http://www.sc2002.org/**	see website
ANS 15th Topical Meeting on Technology of Fusion Energy	Nov. 17-21, 2002 Washington, DC	**www.ans.org/meetings**	June 21, 2002
14th Annual U.S. Hydrogen Meeting	Mar. 4-6, 2003 Washington, DC	**http://www.hydrogenconference.org/**	Feb. 3, 2003
ENS TopFuel 2003/ANS LWR Fuel Performance Meeting	Mar. 16-19, 2003 Wurzburg, Germany	**http://www.topfuel2003.de**	Nov. 4, 2002
Software Quality Forum 2003 (SQF 2003)	Mar. 25-26, 2003 Arlington, Virginia	**http://cio.doe.gov/sqas**	Nov. 15, 2002
M&C 2003	Apr. 6-10, 2003 Gatlinburg, Tennessee	**meetingsandconferences.com/MC2003**	Oct. 21, 2002
9th International Symposium on Radiation Physics (ISRP-9)	October 27-31, 2003 Cape Town, South Africa	**www.medrad.tlabs.ac.za/isrp9.htm**	
International Congress on Advanced Nuclear Power Plants (ICAPP '03)	May 4-7, 2003 Cordoba, Spain	**www.ans.org/goto/icapp03**	Oct. 15, 2002
21st International System Safety Conference	Aug. 4-8, 2003 Ottawa, Canada	**http://www.system-safety.org/**	Jan. 17, 2003
Advances in Nuclear Fuel Management III	Oct. 5-8, 2003 Hilton Head Island, South Carolina	**http://rpd.ans.org/nfm.htm**	Mar. 15, 2003
The 11th International Conference on Fusion Reactor Materials (ICFRM-11)	Dec. 7-12, 2003 Kyoto, Japan	**icfrm.iae.kyoto-u.ac.jp**	Apr. 30, 2003

Advances in Nuclear Fuel Management III - Call For Papers

Preparations for the American Nuclear Society's Advances in Nuclear Fuel Management III Topical Meeting to be held in Hilton Head Island, South Carolina, during the period of **October 5-8, 2003**, have now begun in earnest. You are invited to serve on the Meeting's Technical Program Committee (TPC). In this capacity your commitment will include:

1. Electronically submit one or more papers, and encourage colleagues to do the same,
2. Help identify and organize special session(s) on timely topics you are interested in, and solicit participation, and
3. Electronically review papers assigned to you in a timely and professional manner

Please return the following information (name, affiliation, phone, alternative email if preferable, topics of interest) to Youssef A. Shatilla at **shatilya@westinghouse.com**.

The success of this meeting depends on your active support and involvement. Finally, please bookmark the conference web site: **http://rpd.ans.org/nfm.htm** and visit it occasionally for news and updates. Comments and suggestions are most welcome.

ENS TopFuel 2003/ANS LWR Fuel Performance Meeting

The American Nuclear Society (ANS) and the European Nuclear Society (ENS) have agreed to bundle their conference activities concerning nuclear fuel. The well established ANS "LWR Fuel Performance Meeting" and the ENS "TopFuel Conference" will from now on be jointly held, alternating the location between the USA and Europe.

The first joined conference will be organized by the local nuclear society in Germany, the KTG (Kerntechnische Gesellschaft e.V.) from **March 16-19, 2003**, at Würzburg. The program will comprise invited and contributed papers. Please visit our website for more information: **http://www.topfuel2003.de**. Abstracts should be sent to **conferences@inforum-gmbh.de** before November 4, 2002.

The 11th International Conference on Fusion Reactor Materials (ICFRM-11)

The first announcement of "The 11th International Conference on Fusion Reactor Materials (ICFRM-11)," which will be held in Kyoto, Japan, **December 7-12, 2003**, is now available on the ICFRM-11 website at **http://icfrm.iae.kyoto-u.ac.jp**. For further information, contact ICFRM-11 secretariat at **icfrm@iae.kyoto-u.ac.jp** or phone +81-774-38-3597, fax +81-774-38-3467.

2003 International Congress on Advanced Nuclear Power Plants (ICAPP '03)

We are pleased to announce the call for papers for the "2003 International Congress on Advanced Nuclear Power Plants" (ICAPP '03) which will be held in Cordoba, Spain, **May 4-7, 2003,** at the Congress Palais. Please make note of the October 15, 2002 deadline for abstracts.

Following the highly successful ICAPP '02 meeting held in Hollywood, Florida, this international congress will bring together international experts of the nuclear industry involved in the operation, development, building, regulation, and research related to nuclear power plants. The conference is sponsored by the leading nuclear societies of Europe, Asia, and the USA.

The program will cover the full spectrum of nuclear power plant issues from design, deployment and construction of plants to research and development of future designs and advanced systems. The program is expected to cover lessons learned from power, research and demonstration reactors from over 50 years of experience with operation and maintenance, structures, materials, technical specifications, human factors, system design, and reliability. You may visit the ICAPP '03 website at **www.ans.org/goto/icapp03** for updated information on the congress and to download a copy of the Call For Papers.

21st International System Safety Conference

The System Safety Society is pleased to announce the 21st International System Safety Conference, **August 4-8, 2003**, in Ottawa, Ontario, Canada. The conference is an international forum for the technical presentation and discussion of all aspects and issues regarding system safety engineering and management. The conference theme is "Broader Perspectives, Focused Solutions." The emphasis is on knowledge and skills necessary to create the system safety solutions for increasingly complex technologies and missions. The range of topics will cover both the art and science of system safety and the organizational issues influencing the effective management of system safety in the product life cycle. This is the major conference for system safety and related professionals, with a week of technical sessions, tutorials, workshops, special events, social affairs, luncheons, and the society's awards banquet. The conference proceedings are the premier collection of work in the system safety field. For more information, please visit: **http://www.russona.com/issc21/**.

9th International Symposium in Radiation Physics (ISRP-9)

The 9th International Symposium on Radiation Physics (ISRP-9) will be held in Cape Town, South Africa, **October 27-31, 2003**. This triennial event will be organized jointly by the International Radiation Physics Society (IRPS) and iThemba Laboratory for Accelerator Based Sciences (iThemba LABS) [formerly the National Accelerator Centre]. The Symposium is the latest one in a series which began in Calcutta in 1974 and thereafter continued in Penang (1982), Ferrara (1985), São Paulo (1988), Dubrovnik (1991), Rabat (1994), Jaipur (1997) and Prague (2000). A 2½ day "Workshop on Radiation-Based Analytical Techniques" (WoRBAT) will be held prior to ISRP-9 (October 24-26, 2003) with the emphasis on x-ray fluorescence and diffraction (XRF, XRD) and particle-induced x-ray emission (PIXE). For more information, please visit **www.medrad.tlabs.ac.za/isrp9.htm**.

2nd International Workshop on Advanced Radiation Transport Simulation with PENELOPE

Dr. Francesc Salvat of the Universitat de Barcelona, Spain, announces the "2nd International Workshop on Advanced Radiation Transport Simulation with PENELOPE," to be held in Salou (Tarragona, Spain) on **January 8-10, 2003**. You can reach Dr. Salvat at: (tel 34-9340-21186, fax 34-9340-21174, email **cesc@ecm.ub.es**). Please see attached **information** in pdf format.

M&C 2003

The American Nuclear Society's Mathematics and Computation Topical Meeting, M&C 2003, will be held in Gatlinburg, Tennessee, **April 6-10, 2003**. The unique setup for this conference, entitled "Nuclear Mathematical and Computational Sciences: A Century in Review, A Century Anew," promises to provide an exciting and unprecedented opportunity for students and professionals in the field to learn about its rich intellectual heritage from leading figures. The Review section of the conference is comprised of eight lectures on selected topics of common interest to the membership of the Mathematics and Computation Division, the primary sponsor of the meeting. The Anew section of the meeting will include contributed and invited papers on standard topics in this series of conferences. Please refer to the conference web site **http://meetingsandconferences.com/MC2003/** for details on the lectures series and lecturers, a list of topics for contributed papers and special sessions, author instructions, and general information about the conference.

The web site for M&C 2003 is now open for submitting papers. Please check the "Call for Papers" link to learn about the topics of interest in this conference, including special sessions topics. The "Authors" link has templates for preparing full papers in MS Word, WordPerfect, and LaTeX. Please note that abstract submission is not required due to the Math & Computational Sciences Division's policy of

reviewing only full papers for inclusion in meetings where the division is the primary sponsor. We look forward to welcoming you to Gatlinburg.

MCNP Course Announcement for 2003

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**
Japanese contact: **tadakazu@hero.tokai.jaeri.go.jp**

2003

January 27-30	Introductory class	Mass. Inst. of Technology
February date TBA	To be determined	North Carolina State University
May 12-16	Introductory class	Japan
June date TBA	Introductory class	Los Alamos National Laboratory
August date TBA	Advanced MCNP Topics	Los Alamos National Laboratory

The introductory class is for people who have little or no experience with MCNP. 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 classes will be based on MCNP5. The code and data package will be available through RSICC at a reduced rate to class participants. The new capabilities of version 5 will be covered.

The other capabilities on 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 (MCNP 4C2) geometry models, including lattices, universes, fills, and other geometrical transformations. The Visual Editor can:

Display MCNP 4C2 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.

Two classes are scheduled **March 17-21, 2003**, and **September 8-12, 2003,** both 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.

Class will include computer demonstrations and exercises that will focus on creating and interrogating input files with the Visual Editor. Advanced visualization work using MCNP will also be demonstrated. The class will be taught on Pentium computers running the Linux operating system and

Windows NT. Class attendees can use either the Linux or Windows version of the visual editor. Attendees are encouraged to bring their own input files for viewing and modifying in the visual editor. 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 for 2002 & 2003

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**

2002

November 11-15	Intermediate	Tokyo, Japan
November 18-22	Intermediate	Mol, Belgium

2003

January 13-17	To be decided	Orlando, Florida
February 17-21	To be decided	Las Vegas, Nevada
March 31-April 4	To be decided	Knoxville, Tennessee
May	To be decided	Los Alamos/Santa Fe
June	To be decided	Europe

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. For more information on code versions and their capabilities, go to the MCNPX Workshops web site **http://mcnpxworkshops.com**.

RESRAD and RESRAD-BUILD Training Workshop

Argonne National Laboratory is planning to conduct a training workshop on the probabilistic RESRAD and RESRAD-BUILD codes using the newly released codes. The workshop is sponsored by

DOE and will be held at Argonne (near Chicago, Illinois) on **December 3-6, 2002**. Space is limited. The registration fee is US$600.00. For more information, please visit **http://web.ead.anl.gov/resrad/training/DecWrkshp.cfm**.

SAMMY WORKSHOP ANNOUNCED

RSICC is pleased to announce that a five-day workshop on Oak Ridge National Laboratory's (ORNL) SAMMY code will be held **May 12-16, 2003**, in Knoxville, Tennessee. This training course is intended for those who are interested in the theory of neutron cross sections in the resonance region, and in the use of SAMMY for the analysis of experimental neutron-induced cross-section data for extracting values and covariances for resonance parameters. Both novice and experienced SAMMY users would benefit from the intensive and extensive examination of all aspects of resonance parameter analyses.

During the workshop, lectures and computer applications will alternate. Lectures will include both theoretical discussion and practical examples for each topic. The lecturer is Dr. Nancy Larson of the Nuclear Data and Information Analysis Group, Nuclear Science and Technology Division of ORNL, author of the SAMMY code.

Topics include (but are not limited to) the following:

I. R-matrix formalisms (both resolved and unresolved resonance region)
II. Simulation of experimental conditions
    A. Multiple nuclides in the sample
    B. Doppler- and resolution-broadening
    C. Self-shielding and multiple-scattering corrections
    D. Other data-reduction effects
III. Mathematical methods used for experimental data-fitting
    A. Use of covariance information
IV. Reporting results for Evaluated Nuclear Data Files
V. Features in the latest version of the analysis code SAMMY

The workshop will include hands-on computer applications using the latest version of SAMMY (M6). Computer exercises will lead participants through the various features of the code beginning with simple examples and leading to realistic situations. Participants who are experienced SAMMY users are encouraged to bring their own examples as well.

The number of PC workplaces available at the training center restricts the number of workshop participants accepted. Therefore, we encourage you to register as early as possible. The SAMMY workshop web site with further detailed information and on-line registration can be accessed at **http://www-rsicc.ornl.gov/SAMMY/intro.html**). Please bookmark the site and visit it occasionally for news and updates as they become available.

SCALE 5 Workshop Announced

The first workshop on SCALE 5 is being planned in conjunction with the American Nuclear Society M&C 2003 Topical Meeting in Gatlinburg, Tennessee. The workshop will be hosted by Oak Ridge National Laboratory in nearby Oak Ridge, Tennessee. The course is scheduled for the week of **March 31 - April 4, 2003**, immediately before the M&C 2003 meeting.

The workshop will feature some of the new modules to be released in SCALE 5, such as the SEN3 3-D sensitivity/uncertainty sequence and the STARBUCS burnup credit sequence for criticality safety. The workshop will emphasize hands-on experience solving practical problems on PCs. There will be workgroups of two persons each. No prior experience in the use of SCALE is required to attend. The registration fee is $1800 (there is a $300 early registration discount). You can register online at **www.ornl.gov/scale/register_scale5.html** or as part of your M&C 2003 registration. The early registration deadline is February 28, 2003. *(See announcement on M&C 2003 Conference)*.

Software Quality Forum 2003 (SQF 2003)

The Forum will be held **March 25-26, 2003,** at the Crystal Gateway Marriott Hotel, which is conveniently located in Arlington, Virginia.

The Program Committee is now accepting presentation proposals for the Software Quality Forum 2003 (SQF 2003). The Forum offers an exciting opportunity for software professionals in the Department of Energy (DOE), other government agencies, private industry, and academia to share their knowledge about trends and technologies in the acquisition, development, support, and management of software intensive systems. Well-known keynote speakers, tutorials on key Forum topics, a showcase for high-visibility IT projects using cutting-edge technologies, and a vendor exhibit area are included in the program.

This is a tri-annual event sponsored by the Software Quality Assurance Subcommittee (SQAS) of the Quality Managers within the DOE Nuclear Weapons Complex. The 2003 Forum is co-hosted by the DOE Office of the Chief Information Officer and the National Nuclear Security Administration, Office of Advanced Simulation and Computing within the Office of Defense Programs.

Please note the following due dates: submission of proposal, abstract, and biography is November 15, 2002, notification of acceptance is December 31, 2002, final abstract is January 15, 2003, and electronic and paper versions of presentation are due February 1, 2003.

For more information visit the web site **http://cio.doe.gov/sqas**. Look for the "Forum 2003" heading on the left side of the home page. There will be a website devoted to the SQF 2003 in a week or so, which will be linked from the above website. If you have questions, send email to Kathleen Canal at **kathleen.canal@ hq.doe.gov**. If interested in submitting a presentation proposal, please contact Brenda Coblentz, Program Committee Chair, at **brenda.coblentz@hq.doe.gov**.

CALENDAR

November 2002

Computed Tomography: Patient Dose Symposium, Nov. 6-7, 2002, Arlington, VA. Contact: William Beckner (tel 301-657-2652, fax 301-907-8768, url **http://www.ncrp.com**).

MCNPX Intermediate Workshop, Nov. 11-15, 2002, Tokyo, Japan. Contact: Bill Hamilton (tel 505-662-9097, email **registrar@mcnpxworkshops.com,** url **http://mcnpxworkshops.com** for details).

The 48th Annual Radiobioassay and Radiochemical Measurements Conference, Nov. 11-15, 2002, Knoxville, TN. Contact: Tom Rucker (tel 865-481-2993, email **ruckert@saic.com** url **http://www.bioassay.org/2002/**).

SC2002, Nov. 16-22, 2002, Baltimore, MD. Contact: (**sc2002-info@sc-conference.org**, url **http://www.sc2002.org/**).

15th ANS Topical Meeting on the Technology of Fusion Energy, Nov. 17-21, 2002, Washington, DC. (url **www.ans.org/**).

MCNPX Intermediate Workshop, Nov. 18-22, 2002, Mol, Belgium. Contact: Bill Hamilton (tel 505-662-9097, email **registrar@mcnpxworkshops.com**, url **http://mcnpxworkshops.com** for details).

International Symposium on Standards and Codes of Practice in Medical Radiation Dosimetry, Nov. 25-28, 2002, IAEA, Vienna. Contact: Dr. Ken R. Shortt (tel +43 1 2600 21664, fax +43 1 26007 21662, email **Dosimetry@iaea.org**, url **www.iaea.org/worldatom/Meetings/2002/infcn96.shtml**).

January 2003

2nd International Workshop on Advanced Radiation Transport Simulation with PENELOPE, Jan. 8-10, 2003, Tarragona, Spain. Contact: Dr Francesc Salvat (tel 34 9340 21186, fax 34 9340 21174, email **cesc@ecm.ub.es**).

MCNPX Workshop, Jan.13-17, 2003, Orlando, FL. Contact: Bill Hamilton (tel 505-662-9097, email **registrar@ mcnpxworkshops.com**, url **mcnpxworkshops.com** for details).

MCNP Course, Jan. 27-30, 2003, Mass. Inst. of Technology, Cambridge, MA. Contact: Elizabeth Selcow (email **selcow@lanl.gov**, url **http://www-xdiv.lanl.gov/x5/MCNP/ index.html**).

February 2003

MCNPX Workshop, Feb. 17-21, 2003, Las Vegas, NV. Contact: Bill Hamilton (tel 505-662-9097, email **registrar@mcnpxworkshops.com**, url **http://mcnpxworkshops.com** for details).

MCNP Course, Feb. 2003, (TBA), North Carolina State University. Contact: Elizabeth Selcow (email **selcow@lanl.gov**, url **http://www-xdiv.lanl.gov/x5/MCNP/index.html**).

March 2003

14th Annual U.S. Hydrogen Meeting, Mar. 4-6, 2003, Washington, DC. Contact: Catherine E. Grégoire Padró (tel 303-275-2919, fax 303-275-2905, email **owner-hydrogen@mail.nrel.gov**, url **http://www.hydrogenconference.org/**).

Software Quality Forum 2003, Mar. 24-26, 2003, in Arlington, VA. Contact: Kathleen Canal (email **kathleen.canal@hq.doe.gov**, url **http://cio.doe.gov/sqas**).

MCNPX Workshop, Mar. 31-Apr. 4, 2003, Knoxville, TN. Contact: Bill Hamilton (tel 505-662-9097, email **registrar@mcnpxworkshops.com** url **http://mcnpxworkshops.com** for details).

SCALE5 Workshop, Mar. 31-Apr. 4, 2003, Oak Ridge, TN. Contact: Kay Lichtenwalter (email **x4s@ornl.gov**, **scalehelp@ornl.gov**, url **http://www.ornl.gov/scale/ workshop_mc2003.html**).

April 2003

ANS Topical Meeting, Nuclear Mathematical and Computational Sciences: A Century in Review, A Century Anew, Apr. 6-10, 2003, Gatlinburg, TN. Co-sponsored by the American Nuclear Society's Reactor Physics, and Radiation Protection and Shielding Divisions, as well as the ANS Oak Ridge/Knoxville Local Section, Oak Ridge National Laboratory's Radiation Safety Information Computational Center, the Nuclear Energy Agency of the OECD, the Korean Nuclear Society, and the Canadian Nuclear Society. Contacts: Yousry Azmy (tel 814-865-0039, email **yya3@psu.edu** or Bernadette Kirk (tel 865-574-6176, email **kirkbl@ornl.gov**, url **http://meetingsandconferences.com/MC 2003/index.html**).

May 2003

MCNP Course, May 12-16, 2003, Japan. Contact: Elizabeth Selcow (email **selcow@lanl.gov,**

url **http://www-xdiv.lanl.gov/x5/MCNP/ index.html**).

MCNPX Workshop, May 2003, Los Alamos/Santa Fe, NM. Contact: Bill Hamilton (tel 505-662-9097, email **registrar@mcnpxworkshops.com,** url **http://mcnpxworkshops.com** for details).

June 2003

MCNPX Workshop, June 2003, Europe. Contact: Bill Hamilton (tel 505-662-9097, email **registrar@mcnpxworkshops.com,** url **http://mcnpxworkshops.com** for details).

MCNP Course, June 2003, (TBA), Los Alamos National Laboratory, Los Alamos, NM. Contact: Elizabeth Selcow (email **selcow@lanl.gov**, url **http://www-xdiv.lanl.gov/x5/MCNP/ index.html**).

August 2003

21st International System Safety Conference, Aug. 4-8, 2003, Ottawa, Canada. Contact: Gerry Einarsson, Chair, (tel 613-824-2468, email **einargk@rogers.com**, url **http://www.russona.com/issc21/**).

MCNP Course, Aug. 2003, (TBA), Los Alamos National Laboratory, Los Alamos, NM. Contact: Elizabeth Selcow (email **selcow@lanl.gov**, url **http://www-**

xdiv.lanl.gov/x5/MCNP/ index.html).

September 2003

International Conference on Supercomputing in Nuclear Applications, SNA 2003, Sept. 22-24, 2003, Paris, France. Organizers: CEA, SFANS, co-organizer: OECD/NEA. (email **SNA-2003@cea.fr**, url **http://SNA-2003.cea.fr**).

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**).

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**).

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**.

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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