RSIC Newsletter

No. 270   *May 1987*

He who knows not and knows who knows may well work in an information center.—Betty F. Maskewitz

ANS RP&S Division Honors Innovator, Educators and RSIC

The American Nuclear Society (ANS) Radiation Protection and Shielding (RP&S) Division held its Topical Meeting on "Theory and Practices in Radiation Protection and Shielding," April 22–24, in Knoxville, Tennessee. Several ANS RP&S Division awards were formally presented during the conference banquet.

Lewis V. (Lew) Spencer, ret. National Bureau of Standards, received a 1986 award for Professional Excellence by virtue of the following contributions:

> For his principal role in developing the moments method for neutron and gamma-ray shielding analysis, which has produced benchmark data, an international standard for comparison. He has made significant contributions to shielding and dosimetry methods based on moments method data for assessing protection requirements against nuclear weapons fallout. Dr. Spencer is recognized worldwide as an authority on radiation transport and dosimetry. His work is documented by many contributions to respected journals, and he has authored and coauthored several books on shielding, including *Structure Shielding Against Fallout Gamma-Rays from Nuclear Detonations*. He has been an active member of the National Council on Radiation Protection and Measurements (NCRP) and has been cited for his work by being awarded the prestigious Gray Medal.

Richard E. (Dick) Faw, Kansas State University, also received a 1986 award for Professional Excellence by virtue of the following contributions:

> For his long and continuing role as a teacher of nuclear studies and engineering and for his participation in the activities of the Radiation Protection and Shielding Division. Dr. Faw has distinguished himself by his research and many publications on shielding and related studies. His research in radiation scattering, especially scattering in air, is particularly well known. He is coauthor of the widely-accepted text *Principles of Radiation Shielding*. He has also been an active member of the American Nuclear Society and the Missouri-Kansas Local Section. He has been a member of the Executive Committee of the RPSD and is Chairman of ANS Standards Working Group ANS-6.6.1, "Calculation and Measurements of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants."

Arthur B. Chilton was awarded the second Rockwell Lifetime Achievement Award posthumously; it was presented to his widow, Charlotte.

Art knew he was to be presented with this award and was pleased to be so honored by his colleagues. The citation reads as follows:

American Nuclear Society

Radiation Protection and Shielding Division

On behalf of the American Nuclear Society, the Radiation Protection and Shielding Division is pleased to present to

Arthur B. Chilton

its second Rockwell Lifetime Achievement Award for his unique and lasting achievements in the fields of radiation protection and shielding.

Art served 24 years in the Civil Engineering Corps of the U.S. Navy and commanded the Naval Civil Engineering Laboratory at Port Hueneme, California, in the 1950s. It was here that he supervised experiments to obtain information on neutron and gamma-ray streaming through ducts. The famous Chilton-Huddleston formula for gamma-ray backscattering was a direct result of this work. After retiring from the U.S. Navy in the early 1960s, he took up a career in education. As a professor of nuclear engineering at the University of Illinois, he continued research in radiation transport and became mentor to a number of graduate students now active in the industry.

A prolific author, Art has many papers and several books to his credit, including *Structure Shielding Against Fallout Gamma Rays from Nuclear Detonations* (with Lew Spencer and Charlie Eisenhauer) and *Principles of Radiation Shielding* (with Dick Faw and Ken Shultis). He was a principal editor of the *IAEA Engineering Compendium on Radiation Shielding*.

He was a Fellow of the American Nuclear Society (ANS), served on its board of directors, and received the Arthur Holly Compton Award from the ANS in 1984 for outstanding contributions in nuclear science and engineering education. In 1968, Art was elected chairman of the ANS Shielding and Dosimetry Division (now Radiation Protection and Shielding).

Art was very interested in standards development and was a member (1973–1985) of the National Council on Radiation Protection and Measurements (NCRP) and served on several of its scientific committees. He also served the International Commission on Radiation Units and Measurements and was a member of American National Standards Institute (ANSI) Committee N17, Research Reactors, Reactor Physics, and Radiation Shielding. He was especially interested in the problem of converting flux density values to absorbed dose and dose equivalent. In this connection, Art maintained contact with European workers, and he was a member of ANS-6.1.1, Neutron and Gamma-Ray Flux-to-Dose-Rate Factors.

The last presentation made during the evening was the 1987 Technical Service Award. For the first time the award was made to an institution. Months short of its 25th anniversary (June 1987) the Radiation Shielding Information Center (RSIC) was formally recognized for its "twenty-five years of dedicated support and service to the international radiation protection and shielding community." Current members of RSIC received a memento in appreciation of their service. The many persons who have served RSIC in the past will receive a certificate in recognition of

The 1987 RSIC staff: standing left to right—S. Noel Cramer, Dawn C. Human, Bernadette L. Kirk, Alice F. Rice, Betty F. Maskewitz, Robert W. Roussin, Betty L. McGill, David K. Trubey, and John E. White; sitting left to right—Carol P. Coker, Marie B. Anthony, Ann B. Gustin, Jennie L. Bartley, and Nancy A. Hatmaker.

their roles in the establishment, development, and maintenance of RSIC.

In the keynote address, Betty F. Maskewitz, Director of the Engineering Physics Information Centers (EPIC), the organizational unit under which RSIC falls, expressed thanks on behalf of RSIC for this recognition, but recognized that "Without your contributions to the technology base, without your participation in all our activities, there would be no RSIC. You, the international shielding community, keep us viable."

Topical Proceedings The proceedings of "Theory and Practices in Radiation Protection and Measurements" is available in a two-volume set for $70. Order number 700121 from ANS, 555 N. Kensington Ave., La Grange Park, IL 60525.

CHANGES TO THE COMPUTER CODE COLLECTION

During the month two changes were made to the computer code collection. Newly frozen versions of two existing code packages were contributed by Japan.

CCC-391/PALLAS-2DCY-FX

A newly frozen version of this multigroup neutron/gamma-ray direct integration transport code system for two-dimensional cylindrical geometry was contributed by the Japan Atomic Energy Research Institute (JAERI), Tokai-mura, Ibaraki-ken, Japan. Its principal applications are to neutron or gamma-ray transport problems in the forward mode, and it is particularly designed for and suited to the solution of deep penetration radiation transport problems with an external (fixed) source. To improve the accuracy of duct and void streaming calculations a special option has been added whereby the uncollided angular flux from a point source or any cylindrical surface source is calculated analytically based on point kernel integration. Neutron and gamma-ray cross-section libraries are provided as part of the package. Reference: JAERI-M 84-244 (February 1985). FORTRAN IV; FACOM M380.

CCC-410/THIDA-2

A newly frozen version of this code system for the calculation of transmutation, activation, decay heat, and dose rate was contributed by JAERI. The neutron flux in and around an operating fusion device is calculated using ANISN, DOT-3.5, or MORSE-GG. The neutron flux is used as input to ACT4 which calculates the induced activity, the approximate decay heat, and the delayed gamma-ray source after a pulsed operation. The Matrix Exponential Method is used to solve the decay chain equations to obtain time-dependent nuclide densities. The delayed gamma-ray source serves as input for the transport calculation of the delayed gamma-ray flux during shutdown, using the same transport code as that used for the neutron flux calculation. The gamma-ray flux is converted to shutdown dose rate, the decay heat is calculated, and these quantities are plotted by the APPLE-2 code. The ACT4, ANISN, APPLE-2, DOT3.5, and MORSE-GG computer codes are all included as part of THIDA-2. The TOPIC code for geometry preparation and visualization is also provided. Numerous data libraries needed for the complete calculation are also included. Reference: JAERI 1301 (March 1986). FORTRAN 77; IBM 360.

NOTE‼ CCC-277A/MORSE-SGC USERS

The IBM version of this super-grouped cross-section Monte Carlo radiation transport code is reported by the Zentralinstitut f. Kernforschung, Dresden, German Democratic Republic, to have errors in subroutines RINUP1 and SORIN. This version is no longer maintained by the original contributor, Oak Ridge National Laboratory, and RSIC no longer distributes it. The CDC version, CCC-277B, from Sandia National Laboratories, is free of these errors. MORSE-SGC users are urged to use CCC-277B or the IBM version contained within the CCC-466/SCALE-3.1 package. References: ORNL/CSD-7 (1976), ORNL-4972 (1975), ORNL/CSD-11 (1976), and SAND80-1337 (1982).

RSIC Adds BITNET to Networks Links

Electronic mail and file transfer to or from RSIC is possible on several networks. The latest network to become available to RSIC is BITNET (Because It's Time NETwork). BITNET links more than 1800 nodes at over 600 institutions of higher education and research centers including over 100 in Europe (EARN), Canada (NetNorth), and Japan and the Far East. BITNET is a "store-and-forward" network; information orginating from a given site is received by an intermediate site and forwarded to its destination. BITNET users share information via real-time terminal messages and electronic mail; transfer of documents, programs, and data; and access to BITSERVE (the BITNET server machine) and its associated data services.

BITNET is supported by the BITNET Network Support Center comprising the Network Information Center (BITNIC) at EDUCOM and the Development and Operations Center (BITDOC) at City University of New York.

To use BITNET institutions incorporate BITNET access into their local mail systems, providing a straightforward user interface. Much of the software used to interface to BITNET is readily available on a cooperative basis or commercially.

The computers in BITNET are interconnected by leased lines supporting 9600 bits-per-second data transmission.

BITNET continues to expand its membership and facilities. Interconnecting BITNET with other networks has increased its potential for information exchange. Gateways already exist between BITNET and ARPANET, the network of the Defense Advanced Research Projects Agency; CSNET, a network of over 150 computer science research departments and institutions; MAILNET, EDUCOM's inter-institutional mail system; and UUCP, a UNIX-based dial-up network with over 1500 nodes worldwide. Other gateways are in various stages of development.

RSIC addresses are:

BITNET: pdc@ORNLSTC.

ARPANET: pdc@ORNL-STC10.ARPA.

ANSIRS (American Nuclear Society): AMN007.

EASYLINK and TELEX: see the masthead.

NNDC ON-LINE SERVICE AVAILABLE

The National Nuclear Data Center (NNDC) at Brookhaven National Laboratory, Upton, New York, has made on-line service to several data files available through the PHYSNET/HEPNET network or through a modem. The data files available are:

ENSDF — Evaluated Nuclear Structure Data File contains data on nuclear level properties, radiations, radioactive decay and reaction data for $1 \leqslant A \leqslant 263$.

NUDAT — Nuclear Data has evaluated numeric data extracted or derived from the ENSDF and the Nuclear Wallet Cards.

NSR — Nuclear Structure Reference file contains bibliographic information for low and intermediate energy nuclear physics, covering the period 1910 to the present. The data file is updated monthly.

CINDA — Computer Index of Neutron Data contains bibliographic references to neutron reaction data.

Other files being considered for addition to the on-line service include the Evaluated Nuclear Data File (ENDF/A and /B) and data exchanged in the EXFOR system which contain neutron and charged particle reaction data.

The system is user-friendly and guides the user through the retrieval procedure step by step. Further information may be obtained from National Nuclear Data Center, Bldg. 197D, Brookhaven National Laboratory, Upton, NY 11973 (phone 516-282-2901; FTS 666-2901).

Visitors to RSIC

During the month the following persons came for an orientation visit and/or to use RSIC facilities: *Steve Thomas,* Savannah River Plant, Aiken, South Carolina; *Frederick C. Sturz,* U.S. Nuclear Regulatory Commission, Washington, D.C.; *Albert Fasso* and *Graham R. Stevenson,* CERN, Switzerland; *Hwai-Pwu Chou,* National Tsing Hua University, Hsinchu, Taiwan; *Wei-Chu Yu* and *Bon-Jing Chang,* Inst. of Nuclear Energy Research, Lung Tan, Taiwan; *Masayoshi KAWAI,* Nippon Atomic Industry Co., Ltd., Kawasaki, Japan; *Y. Oka,* Univ. of Tokyo; *Zenro Suzuoki,* FBR Engineering Co., Ltd., Tokyo; and *Moria Takemura,* Kawasaki Heavy Industries, Tokyo.

CONFERENCES, COURSES, SYMPOSIA

RSIC 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 to RSIC.

HEART

El Toro Marine Air Station, California, is the site for the sixth *Hardened Electronics and Radiation Technology (HEART) Conference* to be held February 1–4, 1988. The HEART Conference provides a scientific forum specifically for research of a classified or sensitive nature. Technical papers, either classified up to Secret Restricted Data or unclassified but restricted by export-control (ITAR), are invited for consideration in the following proposed technical sessions.

Effects on Electronic Devices, Pieceparts, Subsystems, and Systems from
> Nuclear Weapons Direct Radiation, Enhanced Space Radiation, Directed Energy, Electromagnetic Pulse, and Spacecraft Charging.

Hardening Processes, Techniques, and Designs,

Hardness Verification, and

Hardness Assurance/Hardness Maintenance.

Contributions on other topics of electronics susceptibility are also welcomed. Contributing authors must submit an informative two- to five-page summary (including figures) by **August 17, 1987.** Five copies and a cover letter should be mailed to James P. Raymond, 1988 HEART Technical Program Chairman, Mission Research Corporation, 5434 Ruffin Road, San Diego, CA 92123-1313.

Calendar

Your attention is directed to the following events of interest to the radiation shielding and protection community.

June 1987

Techniques in Nuclear Radiation Shield Analysis, June 1–5, 1987, Dallas, Texas, a course sponsored by the University of Texas at Austin. Contact: Mike Jackson, Continuing Engineering Studies, Office of the Dean, ECJ 10.234, College of Engineering, The University of Texas at Austin, Austin, TX 78712.

American Nuclear Society Annual Meeting, June 7–12, 1987, Dallas, Texas. Contact: ANS, Meeting Dept., 555 N. Kensington Ave., La Grange Park, IL 60525 (phone 312-352-6611).

27th Annual International Conference of the Canadian Nuclear Association and 8th Annual Conference of the Canadian Nuclear Society, Saint John, New Brunswick, Canada. Contact: CNA, 111 Elizabeth St., 11th Floor, Toronto, Ont., Canada M5G 1P7 (phone 416-977-6152).

Application of Computer Technology to Radiation Protection, June 22–26, 1987, Bled, Yugoslavia, sponsored by the IAEA. Contact: Conference Service Section, IAEA, P.O. Box 100, A-1400 Vienna.

July 1987

32nd Annual Meeting of the Health Physics Society, July 5–9, 1987, Salt Lake City, Utah. Contact: John W. Poston, Sr., Dept. of Nuclear Engr., Texas A&M Univ., College Station, TX 77843-3133 (phone 409-845-4161).

Advanced Workshop on Occupational & Environmental Radiation Protection, July 13–17, 1987, Boston, Massachusetts, a course sponsored by the Harvard School of Public Health. Contact: Dade W. Moeller, Office of Continuing Education, 677 Huntington Ave., Boston, MA 02115 (phone 617-732-1171).

8th International Congress of Radiation Research, July 19–24, 1987, Edinburgh, United Kingdom, sponsored by the International Association for Radiation Research. Attendance is by application and invitation. Contact: E. Martin Fielden, IARR, Div. Radioprotezione CSN Casaccia, Rome, Italy.

Nuclear and Space Radiation Effects in Electronics Tutorial Short Course, July 28--31, 1987, Snowmass Village, Colorado, sponsored by the Institute of Electrical and Electronics Engineers, Inc. Contact: William R. Dawes, Jr., Bendix, Albuquerque Operations, P.O. Box 5800, Albuquerque, NM 87185 (phone 505-844-9330).

24th Annual Conference on Nuclear and Space Radiation Effects in Electronics, July 28--31, 1987, Snowmass Village, Colorado, sponsored by the Institute of Electrical and Electronics Engineers, Inc. Contact: C. W. Gwyn, United Technologies Microelectronics Center, 1575 Garden of the Gods Road, Colorado Springs, CO 80907 (phone 303-594-8008).

August 1987

23rd Nuclear Accident Dosimetry Intercomparison, Aug. 10–14, 1987, Oak Ridge, Tennessee, sponsored by

ORNL. Contact: R. E. Swaja or C. S. Sims, ORNL, Bldg. 7710, P.O. Box X, Oak Ridge, TN 37831-6379 (phone 615-574-5851).

Occupational and Environmental Radiation Protection, Aug. 10–14, 1987, Boston, Massachusetts, a course sponsored by the Harvard School of Public Health. Contact: Dade W. Moeller, Office of Continuing Education, 677 Huntington Ave., Boston, MA 02115 (phone 617-732-1171).

9th International Conference on Structural Mechanics in Reactor Technology (SMiRT-9), Aug. 17–21, 1987, Lausanne, Switzerland, sponsored by the International Association for Structural Mechanics in Reactor Technology, the Commission of the European Communities, and the École Polytechnique Fédérale de Lausanne. Contact: Folker H. Wittmann, École Polytechnique Fédérale de Lausanne, SMiRT-9, Chemin de Bellerive 32, CH-1007 Lausanne, Switzerland.

International Conference on Nuclear Fuel Reprocessing and Waste Management, Aug. 24–28, 1987, Paris, sponsored by the American Nuclear Society and the European Nuclear Society. Contact: Lloyd McClure, Westinghouse Idaho Nuclear Co., Idaho Chemical Processing Plant, P.O. Box 4000, Idaho Falls, ID 83401.

Seminar on the Adoption, Application and Implementation of the Agency's Regulations for the Safe Transport of Radioactive Materials, Aug. 31–Sept. 4, 1987, Vienna, sponsored by the International Atomic Energy Agency. Contact: Conference Service Section, IAEA, P.O. Box 100, A-1400, Vienna, Austria.

September 1987

Pacific Basin Nuclear Conference, Sept. 6–11, 1987, Beijing, People's Republic of China, sponsored by the Chinese Nuclear Society and the American Nuclear Society. Contact: Xu Honggui, Chinese Nuclear Society, P.O. Box 2125, Beijing, People's Republic of China, or ANS, 555 North Kensington Ave., La Grange Park, IL 60525 (phone 312-352-6611).

ANS/ENS International Conference on Fast Breeder Reactor Systems: Experience Gained and Path to Economical Power Generation, Sept. 13–17, 1987, Richland, Washington. Contact: M. C. Carelli, Westinghouse-AESD, P.O. Box 158, Madison, PA 15663 (phone 412-722-5284), or W. Marth, Kernforschungszentrum Karlsruhe, Postfach 3640, D-7500 Karlsruhe 1, F. R. Germany.

Introduction to Internal Dosimetry, Sept. 21–25, 1987, a course sponsored by the Quantum Technology Training Center, Atlanta, Georgia.

Monte Carlo Transport of Electrons and Photons Below 50 MeV, Sept. 24–Oct. 3, 1987, Trapani, Italy. The closing date for application has been extended to June 24, 1987 (see July 1986 *RSIC Newsletter* for details). Contact: David W. O. Rogers, Ionizing Radiation Standards, National Research Council of Canada, Ottawa, Ontario K1A OR6 Canada (phone 613-993-2715).

2nd International Conference on New Frontiers for Hazardous Waste Managment, Sept. 27--30, 1987, Pittsburgh, Pennsylvania, sponsored by NUS Corp., National Science Foundation, American Academy of Environmental Engineers, and the U.S. Environmental Protection Agency. Contact: Lynn Casper, NUS Corp., Park West 2, Cliff Mine Road, Pittsburgh, PA 15275-1071 (phone 412-788-1080).

October 1987

Annual Congress of the Association for Radiation Protection, Oct. 6–9, 1987, Basel, Switzerland. Contact: Fachverband f. Strahlenschutz e.V., c/o H. Brunner, Abt. SU/81, Eidg. Institut f. Reaktorforschung (EIR), CH-5303 Würenlingen, Switzerland (phone 0041 56-99 2350).

2nd Minicourse on Fusion Plasma Engineering, in conjunction with the 12th Symposium on Fusion Engineering, Oct. 12, 1987, in Monterey, California. Contact: Chris Stalker Fusion Studies Laboratory, Univ. of Illinois, 103 South Godwin Ave., Urbana, IL 61801 (phone 217-333-3772).

12th Symposium on Fusion Engineering, Oct. 12--16, 1987, Monterey, California, sponsored by Inst. of Electrical and Electronics Engineers, American Inst. of Aeronautics & Astronautics, U.S. Dept. of Energy, Lawrence Livermore National Laboratory, TRW, Inc., and Grumman Aerospace Corp. See the Call for Papers in March issue of the *RSIC Newsletter.* Contact: Donna Schreiber, L-644, Lawrence Livermore National Laboratory, P.O. Box 5511, Livermore, CA 94556.

6th Symposium on Neutron Dosimetry, Oct. 12–16, 1987, Neuherberg, F. R. Germany, sponsored by the Commission of the European Communities, Society for Radiation and Environmental Research, and the U.S. Department of Energy. Contact: Gesellschaft f. Strahlen- und Umweltforschung mbH, München, Dr. H. Schraube, Ingolsta—dter Landstr. 1, D-8042 Neuherberg, F. R. Germany.

12th Symposium on Fusion Engineering, Oct. 27–30, 1987, Princeton, New Jersey. Contact: IEEE, Technical Activities Dept., 345 E. 47th Street, New York, NY 10017 (phone 212-705-7895).

November 1987

Joint Meeting of the ANS and the Atomic Industrial Forum, Nov. 15–19, 1987, Los Angeles, California. Contact: Meetings Dept., ANS, 555 N. Kensington Ave., La Grange Park, IL 60525 (phone 312-352-6611).

February 1988

Waste Management '88: Symposium on Radioactive Waste Management, Feb. 26–Mar. 3, 1988, Tucson, Arizona, sponsored by the University of Arizona. Contact: M. Wacks, Dept. of Nuclear and Energy Engineering, University of Arizona, Tucson, AZ 85721 (phone 602-621-2475).

April 1988

Workshop on Non-ionising Radiation Biological Effects, Protection and Standards, Apr. 5–8, 1988, Melbourne, Australia. Contact: J. C. Button, Scientific Secretary, IRPA 7, Health and Safety Div., Australian Atomic Energy Commission, Private Mail Bag, Sutherland, NSW 2232 Australia.

Seventh International Congress of the International Radiation Protection Association (IRPA 7), Apr. 10–17, 1988, Sydney, Australia. Contact: J.C.E. Button, Scientific Secretary, IRPA 7, Health & Safety Div., Australian Atomic Energy Commission, Private Mail Bag, Sutherland, N.S.W. 2232, Australia (phone 61-2-543-3295) (Telex: AA.24562).

International Conference on Radiation Protection Principles in Nuclear Energy, Apr. 18–22, 1988, Sidney, Australia, sponsored by the IAEA. Contact: W. Porter,

IE-13, U.S. Dept. of Energy, Forrestal, Washington, DC 20585 (phone 202-252-4573).

June 1988

American Nuclear Society Annual Meeting, June 12-17, 1988, San Diego, California. Contact: ANS, Meetings Dept., 555 North Kensington Ave., La Grange Park, IL 60525 (phone 312-352-6611).

September 1988

Industrial Radiation and Radioisotope Measurement Applications, Sept. 6–8, 1988, Pinehurst, North Carolina, a topical meeting sponsored by the Isotopes and Radiation Division of the ANS. Contact: Robin P. Gardner, General Chairman, or Kuruvilla Verghese, Tech. Program Chairman, North Carolina State Univ., School of Engineering, Box 7909, Raleigh, NC 27695-7909.

APRIL ACCESSION OF LITERATURE

The following literature cited has been ordered for review, and that selected as suitable will be placed in the RSIC Information Storage and Retrieval Information System (SARIS). This early announcement is made as a service to the shielding community. Copies of the literature are not distributed by RSIC. 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.

RSIC maintains a microfiche file of the literature entered into SARIS, and duplicate copies of out-of-print reports may be available on request. Naturally, we cannot fill requests for literature which is copyrighted (such as books or journal articles) or whose distribution is restricted.

This Literature is on order. It is not in our system. Please order from NTIS or other available source as indicated.

RADIATION SHIELDING LITERATURE

AD-A-955044/3/XAB; NRL-Reprint-24-53, . . *Multiple Compton Scattering of Low-Energy Gamma Radiation.*, . . O'Rourke, R.C., . . March 1, 1953, . . NTIS, PC A02/MF A01

AD-A-164523/3, . . *Study of Off-Axis Radiation Exposure from Relativistic Electrons Traversing Through Matter. Master Thesis*, . . Fitzpatrick, R.D., . . Naval Postgraduate School, Monterey, CA, . . December 1985, . . NTIS, PC A07/MF A01

CONF-8504110; Lecture Notes in Physics - Vol.240, . . *Monte-Carlo Methods and Applications in*

Neutronics, Photonics and Statistical Physics., . . Proceedings of the Joint Los Alamos National Laboratory and Commissariat a l'Energie Atomique Meeting. Held at Cadarache Castle, Provence, France - April 22-26, 1985., . . Alcouffe, R.; Dautray, R.; Forster, A.; Ledanois, G.; Mercier, B. (Eds.), . . 1985, . . Springer-Verlag Berlin Heidelberg

CONF-8504110, pp.1-12, . . *Some Aspects of Nuclear Data Evaluation at Bruyères-le-Chatel.*, . . Philis, C.A.; Bersillon, O., . . 1985, . . Springer-Verlag Berlin Heidelberg

CONF-8504110, pp.13-25, . . *Nuclear Data for MCNP.*, . . Little, R.C.; Seamon, R.E., . . 1985, . . Springer-Verlag Berlin Heidelberg

CONF-8504110, pp.26-32, . . *Main Features of the Multipurpose Monte-Carlo Linear Transport Code SICOMORE.*, . . Ledanois, G., . . 1985, . . Springer-Verlag Berlin Heidelberg

CONF-8504110, pp.33-55, . . *MCNP - A General Monte-Carlo Code for Neutrons and Photon Transport.*, . . Forster, R.A.; Godfrey, T.N.K., . . 1985, . . Springer-Verlag Berlin Heidelberg

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CONF-8504110, pp.71-82, . . *Biasing Techniques in TRIPOLI-2 System Using the Monte-Carlo Method in 3-Dimensional Geometries.*, . . Vergnaud, T.; De-

jonghe, G.; Gonnord, J.; Nimal, J.C., . . 1985, . . Springer-Verlag Berlin Heidelberg

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CONF-8504110, pp.93-105, . . *Principle of the Random Walk Method for Radiative Transfer Equations and Application.*, . . Giorla, J.; Sentis, R., . . 1985, . . Springer-Verlag Berlin Heidelberg

CONF-8504110, pp.106-115, . . *Implicit Monte-Carlo Methods and Non-Equilibrium Marshak Wave Radiative Transport.*, . . Lynch, J.; Clark, B.A.; Clark, R.E.H., . . 1985, . . Springer-Verlag Berlin Heidelberg

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CONF-8504110, pp.126-134, . . *Non Deterministic Methods for Charged Particle Transport.*, . . Besnard, D.C.; Buresi, E.; Hermeline, F.; Wagon, F., . . 1985, . . Springer-Verlag Berlin Heidelberg

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CONF-8504110, pp.272-290, . . *Monte-Carlo Electron/Photon Transport.*, . . Mack, J.M.; Morel, J.E.; Hughes, H.G., . . 1985, . . Springer-Verlag Berlin Heidelberg

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CONF-8504110, pp.311-323, . . *Perturbation Calculations by the Correlated Samples Method.*, . . Dejonghe, G.; Gonnord, J.; Nimal, J.C., . . 1985, . . Springer-Verlag Berlin Heidelberg

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