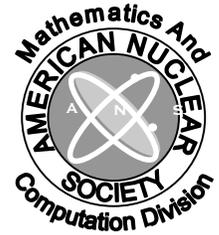


AMERICAN NUCLEAR SOCIETY MATHEMATICS AND COMPUTATION DIVISION



February, 2002

<http://www.mcd.ans.org/newsletters>

MESSAGE FROM THE CHAIR

The Summer ANS Meeting in Milwaukee buzzed with hope and guarded optimism that an order would soon be placed for a nuclear plant, the first new one in decades. That made for a pleasant meeting. Later in the year, during the M&C-2001 Topical Meeting, we were all stunned by the evil events of September 11, and struggled to deal with our disbelief, despair, confusion, and anger. As I write this, we are at war. What to do? One answer is: our jobs. Today, as during the last 50 years, ANS members continue to contribute directly to the Nation's safety and security: helping to ensure the country's current and future energy supply, supporting the national laboratories and national defense, educating the next generation of engineers and scientists, developing medical applications, and more. While not glamorous, this work is necessary and important.

Here are some brief comments on our division, some thank yous, and a challenge for the year ahead:

The Mathematics and Computation Division continues to do well, with 840 current members (not counting 92 who haven't paid dues). As in the past, most of the members are employed at national laboratories and universities: 32% national labs and government, 27% university (half students, half faculty), 24% industry, 10% consultants, 7% retired. The breakdown by profession is: 49% engineers/scientists, 16% managers, 14% educators, 13% students, 7% retired. Our strength as a division continues to be the high quality of technical presentations and papers. In this area, we are a leader among the ANS divisions. In recent years, however, there has been a decline in the number of technical sessions and papers compared to 10 or more years ago. More on this below. Another source of strength for MCD is our continuing partnership with the Reactor Physics Division. MCD and RPD have always cooperated closely and cosponsored each others' topical meetings, to the benefit of both divisions. MCD has an impressive track record for holding

outstanding topical meetings, and this year was no exception. The M&C-2001 Salt Lake City meeting provided many excellent technical papers and talks. While the number of papers and attendees was a little bit lower than past meetings, there was more opportunity for interaction and personal discussion.

Some special thanks and congratulations are in order: First, congratulations to Elmer Lewis for receiving the 2001 MCD Distinguished Service Award. He certainly earned the award for his many years of teaching, technical excellence, and supporting MCD. Second, thanks to Jeff Borkowski, Scott Palmtag, and the Idaho Section for their hard work in organizing the M&C-2001 topical meeting, and to Studsvik Scandpower for their strong support.

Finally, let me challenge all of the MCD members to do 3 things: (1) Write some papers about your work and present them at the 2 yearly ANS meetings. While it does involve some work to prepare papers and some expense to attend meetings, doing so will directly benefit both you and the division. (2) Consider organizing a special session for one of the coming ANS meetings. This too involves some work, contacting speakers and coordinating with the Program Committee, but can be highly rewarding to both you and the division. Focused, well-organized special sessions have been some of the best technical sessions at past meetings; we need more of them in the future. (3) Spend some time and effort to help younger members and students become more involved with MCD. Encourage them to submit papers and to attend both technical sessions and MCD committee meetings at the ANS national meetings.

Forrest Brown
Chair, M&C Division, 2001-02

REPORT

EXECUTIVE COMMITTEE MEETING

MILWAUKEE, WI, JUNE , 2001

Finance Committee – Steve Nolen (for T. Aldemir)

Considerable discussion occurred around the Division's budget, particularly concerning budget allocations that had never been disbursed. A budget was approved that contains \$3850 in allocated expenditures: \$1000 for the Dannels Scholarship Fund, \$1000 for the 2002 ANS Student Conferences, \$1000 for Student Paper Awards, and \$850 for Awards and Plaques.

Honors and Awards Committee. – Paul Turinsky

New committee members have joined this committee. One person in M&C has been nominated for Fellow. A recipient of the Division's Distinguished Service Award has been selected and will be announced at the M&C Topical Meeting. Anil Prinja gave a status report on the Pomraning Award, and indicated that he and Bill Martin would continue to pursue a connection with SAIC. M&C will pay for tickets to the President's reception for students presenting papers in M&C sponsored sessions at national meetings.

Membership Committee –Madeline Feltus

Madeline gave an update on the Division's membership. Details are available from Madeline by email.

Publicity - Todd Palmer

The Division's web site [<http://www.mcd.ans.org>] is up and running, and members are encouraged to check it out and provide feedback. Robert Singletery suggested the possibility of having email updates to inform M&C members about changes to the website, but no action was taken on this proposal.

Report on 2001 ANS Student Conference – Don Todd, Texas A&M University

The 2001 Student Conference, hosted at Texas A&M, was a great success. 330 students attended the conference from many countries. Considerable ANS recruiting was done. Over 25 companies appeared for a career fair. Penn State will host the 2002 ANS Student Conference. Frank Buschman and Marcia Chesleigh are heading the conference organizing committee. There was a general request from the students for more participation by professionals at the student conferences. F. Brown then led a long discussion about M&C's contributions to student aid. Everyone agreed that M&C should participate in student aid. A suggestion was to use some percentage of M&C topical proceeds for student aid. This aid can take the form of awards and/or travel support. Aid cannot be budgeted by M&C topical meetings.

M&C Topical Meeting 2001 – Jeff Borkowski

A report on preparations for the 2001 M&C Division Topical Meeting in Salt Lake City, Utah was given by Jeff Borkowski. For specific details about his report see the minutes of the M&C Program Committee Meeting. Highlights of his report include:

- 117 papers were submitted, 105 papers accepted. This number is considerably lower than Madrid (M&C '99), which had more than 150 papers.
- The paper volume is lower than expected, but the total number of attendees seems reasonable.
- A student award for best paper will be offered. The amount will be ~\$250. J. Borkowski and M. Adams will establish guidelines for the award.

Program Committee – Ali Haghghat

The program committee discussed e-reviews at length. For the Reno (2001 Winter Meeting) meeting it was agreed that reviews would be hidden from view, such that reviewers will not be able to see the output from the other reviews. This issue will be discussed again during the Reno meeting. The effectiveness of these blind reviews will be appraised during the Reno Meeting.

New Business – (all)

R. Sanches distributed brochures for the 2003 Supercomputing in Nuclear Applications conference. The conference will be held Sept. 22-24, 2003 in Paris, France. The division agreed to be a co-sponsor.

[The full minutes of this meeting are available at <http://www.mcd.ans.org/governance>.]

2001 M&C TOPICAL MEETING – SALT LAKE CITY, UTAH

“M&C 2001: International Meeting on Mathematical Methods for Nuclear Applications” was held September 9-13 at the Little America Hotel in Salt Lake City, Utah, USA. Here are a few important statistics about the meeting.

- There were 125 papers submitted.
- 105 papers were accepted and were included in the Proceedings.
- 96 papers were presented. (Some presenters were precluded from attending due to the attacks of September 11.)
- 65 of the 105 accepted papers were contributed by authors outside of the United States, so special thanks go out to our international contributors.
- There were 135 paid attendees, of which 19 were students. Student participation was subsidized with \$1000.00 supplied by MCD.
- The **Best Student Paper** was awarded to “A 2-D 2-Group Neutron Noise Simulator and its Application to Anomaly Localisation,” C. Demaziere, and I. Pazsit, Chalmers University of Technology, Goteborg, Sweden.
- Elmer Lewis of Northwestern University was presented with the M&C Distinguished Service Award.
- Special thanks are in order for our co-sponsors: Reactor Physics Division (RPD) of the ANS, the OECD Nuclear Energy Agency, and the Radiation Safety Information Computation Center.



Jeff Borkowski, Technical Program Chair, and C. Demaziere winner of the Best Student Paper Award



Elmer Lewis, Northwestern Univ., recipient of the M&C Distinguished Service Award

Toward successful topical meetings: lessons learned

-- Jeff Borkowski and Scott Palmtag [See <http://www.mcd.ans.org/news/lessons.pdf> for complete text]

Our preliminary numbers indicate that, in addition to its technical contribution, this meeting will generate income to M&C. However, we did incur fees that we might not have if all attendees registered with us and with the hotel prior to August 9, 2001. We have spoken to some attendees who were not aware of how late registration impacts a conference financially, so it was suggested to us that we outline those issues here.

- Register as early as is practical within the constraints of the budgetary process of your organization. The meetings are scheduled two years in advance and the technical program is known about three months prior to the conference.
- If your organization still uses a Travel Department or similar entity, make a realistic estimate as to how long it takes for your request to migrate through that bureaucracy.
- Try to make the extra effort to stay at the conference hotel even if you need additional managerial approvals due to per diem constraints. Our experience is that most people who asked with enough vigor obtained the necessary approval to stay at the conference hotel.
- Make sure that you (or the person doing it for you) mention the conference by name and date, and ask for the special rate when dealing with the hotel. This is how you obtain a discount and your registration adds to our room count. Further, the hotel may be “full” to the general public because empty rooms are tied up in our reserved block, and the hotel does not know to give you one of those unless you ask.

Being timely and thorough helps balance the books, and these meetings cannot be held if they lose money. Please consider the above information when you register for future meetings.

UPCOMING MEETINGS

*2001 ANS Annual Meeting
Reno, NV, November, 2001*

For more information, see <http://www.ans.org/meetings/pdfs/2001/am2001.pdf>

*Back to the Future of Nuclear Technology, 2002 ANS Student Conference
Apr. 10-13, 2002, University Park, PA*

For more information contact: Frank Buschman (tel 814-865-6351, email fbx129@psu.edu, or www.clubs.psu.edu/ANS).

*2002 ANS Summer Meeting
The Revival of the Nuclear Power Option
Hollywood, FL, June 9 – 13, 2002*

For more information, see <http://www.ans.org/meetings/pdfs/2001/am2002-cfp.pdf>

*PHYSOR-2002
ANS International Topical Meeting on Advances in Reactor Physics and Mathematics and Computation into the Next Millennium
Sheraton Walker Hill Hotel, Seoul, Korea, October 7-10, 2002*

Cosponsored with the Reactor Physics Division. For more information see <http://physor2002.kaist.ac.kr>

*SNA 2003
International Conference on Supercomputing in Nuclear Applications
September 22-24, 2003, Paris, France.*

Cosponsored by CEA, SFANS, co-organizer: OECD/NEA. For more information - email SNA-2003@cea.fr, and see <http://SNA-2003.cea.fr>

[More information about relevant conferences can be found at <http://www-rsicc.ornl.gov/Newsletters/> and <http://www.ans.org/meetings/>]

M&C 2003 - NUCLEAR MATHEMATICAL AND COMPUTATIONAL SCIENCES: A CENTURY IN REVIEW, A CENTURY ANEW

To mark the beginning of the second century of nuclear science, the American Nuclear Society's 2003 M&C Topical Meeting is being organized around the theme: *Nuclear Mathematical and Computational Sciences: A Century in Review, A Century Anew*. The *Anew* part is comprised of contributed papers in regular sessions and invited papers in special sessions. An invitation email message will be sent mid October to Members of the Technical Program Committee to solicit their support by submitting papers, help identify and organize special sessions, and review papers when the time comes.

The Review part of the conference is designed to replace the standard Plenary Session. It is comprised of eight invited lectures by world-renowned leaders in selected topics. Each half-day of conference sessions will commence with one such lecture extending for one-hour, followed by a 15-minute Question/Answer session, a 15-minute break, then the regular sessions proceed.

The speakers have been contacted and have already accepted the invitation. The complete list of topics and speakers is:

1. Transport methods of the first order, Ed Larsen and Jim Morel.
2. Transport methods of the second order, Elmer Lewis.
3. Monte Carlo, Jerry Spanier.
4. Reactor core methods, Kord Smith.
5. Cross sections, Dick Hwang.
6. Reactor kinetics and dynamics, Jack Dorning.
7. Sensitivity, uncertainty, and perturbation theory, Dan Cacuci.
8. Criticality safety methods, Elliott Whitesides.

Please remember that success of this meeting depends on your active support and involvement. Finally, please bookmark the conference's web site <http://www-rsicc.ornl.gov/mc2003/mc2003.html> and visit it occasionally for news and updates. Comments and suggestions are most welcome.

[Thanks to Yousry Asmy for contributing this item.]

2000-2001 ANS MATHEMATICS AND COMPUTATIONS DIVISION OFFICERS

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Treasurer: Steve Nolen (LANL, 505/667-7267, frodo@lanl.gov)
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Robert Singleterry (NASA, 757/864-1437, r.c.singleterry@larc.nasa.gov) (Co-Chairs)
PUBLICITY: Todd Palmer
STANDARDS: Andy Smetana

Editor's Message: This newsletter will (hopefully) be issued twice a year and can be accessed electronically at <http://www.mcd.ans.org/newsletters>. Please send your news and *constructive* comments to me at Oregon State University, Department of Nuclear Engineering, 116 Radiation Center, Corvallis, OR 97331-5902; FAX (541) 737-0480; e-Mail, palmerts@enr.orst.edu; or call (541) 737-7064.

Todd Palmer