



AMERICAN NUCLEAR SOCIETY REACTOR PHYSICS DIVISION



Message from the Incoming Chair

By Jess Gehin

The Reactor Physics Division continues to be one of the strongest technical divisions in ANS as determined by various measures; including excellent national meeting participation, well-attended and organized topical meetings, a very active standards program, a high profile award program, and a highly-sought-after scholarship. These activities and others, however, do not happen on their own, but through the efforts of members.

In particular, I would like to recognize the work of our outgoing chair, Dr. Baard Johansen (Westinghouse) and our out-going Executive Committee Members, Dr. Gray Chang (INL), Dr. Etsuro Saji (TEPCO Systems Corporation), and Dr. Temitope Taiwo (ANL). I would also like to thank the chairs of the standing committees, as listed on the last page of this newsletter, for their hard work in leading their respective committees. Congratulations also go to Jeffrey Bradfute (Westinghouse), who was elected as incoming secretary, and to the newly elected Executive Committee members.

Our division enjoys a particularly strong technical program at our national meetings thanks to the leadership of our Technical Program Chair, Dr. Ivan Maldonado, and our Technical Program Committee. In addition to our standing technical sessions, Ivan and his committee work very hard to support at least two additional Special Sessions on topics of current interest to the reactor physics community. Further information is provided later in this newsletter. I am confident that all of these sessions will be very interesting and I encourage those attending the national meetings to participate in these sessions. I also encourage you to forward ideas and proposals for future special sessions to Ivan and volunteer to serve as a session organizer.

Also included in this newsletter is an update on activities in ANS Standards development. Our

division is very active in the development of standards thanks to the Leadership of Dr. Dimitrios Cokinos (BNL). We can always use qualified members from a diverse set of organizations to participate in the development of these standards. Please contact Dimitrios if you are interested.

It should be clear now that the members of our division are responsible for the success that we have had. Please be among the active members of our division by participating in the activities of our division. For those attending the annual meeting in June, I invite you to attend the governance meetings on Sunday afternoon to contribute to the discussion of the future of our division. I also welcome any comments or suggestions. Please feel free to e-mail or call me to discuss your ideas.

2006 Ballot News

Congratulations to our new 2005-2006 officers and the executive committee members who hold their positions as of June 2005 until June 2008.

Chair:	Jess C. Gehin
Vice-Chair/Chair-Elect:	Benjamin Rouben
Treasurer:	Farzad Rahnema
Secretary:	Jeffrey L. Bradfute
Executive Committee:	Abderrafi Ougouag Taek Kyum Kim Michael L. Zerkle

Best Paper Awards

Another congratulations to the RPD best paper award recipients!

For the 2004 Annual Meeting:
M. A. Smith, W. S. Yang, and T. A. Taiwo, of Argonne National Laboratory for their paper titled "Neutronic Designs for a Lead Cooled, Small Modular Reactor Fueled with TRU."

For the 2004 Winter Meeting:
D. Lee, T. Kozłowski, T.J. Downar, C. Lee, and H.C. Lee, of Purdue University and Westinghouse for their paper entitled:"

Application of SP3 Approximation to MOX Transient Analysis in PARCS.”

For the 2005 Student Conference:

Eric Burgett of Georgia Tech for his paper titled “High temperature Gas Cooled Reactor Utilizing ORNL Low Density Foam”

June 2005 Annual Meeting

The annual meeting in San Diego this year should prove to be yet another excellent conference. Lately the RPD has consistently led all divisions in total abstract submissions: 46 abstracts out of 310 at the upcoming conference in San Diego.

This meeting will offer the standard RPD “standing” sessions plus two special sessions and a panel. Scott Palmtag (Studsvik Scandpower) has organized a special session on “Next Generation of Advanced Methods for LWR Analysis” while Prof. Juan Luis François (UNAM, Mexico) has organized a session on: “Advanced Optimization Methods for Fuel Management.”

Scott Thomas and Bob St Clair from Duke Energy have organized our standing panel on Current Topics for Reactor Engineers for the San Diego meeting on June 5-9, 2005. The theme of the discussion will be “Managing High Energy Designs for Long Cycles and Power Uprates.” The goal is to gather utility representatives that will share their experiences on this topic and to bring together a diverse group representative of the most common U.S. LWR designs.

Winter Meeting 2005

By G. Ivan Maldonado, Program Chair

The original abstract submission deadline of June 10 and has been officially extended to June 20! Submit your papers!

RPD is hosting two special sessions at the Winter meeting this year in Washington DC: T.K. Kim has organized a special session on Advances in the Design of High Temperature Reactors. Likewise, a second special session is being co-organized by Paul Edelmann and Tom Marcille on The Physics of Space Power

Reactors, which will focus on the physics issues of space power reactors with an emphasis on new designs. This should provide a nice six-month follow-up on new physics-related developments reported at the San Diego Space Nuclear Conference.

PHYSOR-2006 Update

By Ben Rouben, RPD Treasurer

Plans for PHYSOR-2006 are advancing well. PHYSOR will be held 2006 September 10-14 in Vancouver, British Columbia, Canada. Mark these dates, and start writing your paper!

Vancouver is a spectacular, cosmopolitan city of over a million people, a multi-cultural crossroads midway between Western Europe and Asia. It has world-famous natural attributes and scenic beauty, which will ensure a truly memorable visit.

The theme of PHYSOR-2006 will be “Advances in Nuclear Analysis and Simulation”. The first Notice for PHYSOR-2006 and the Call for Papers have both been issued and can be seen on the RPD website <http://rpd.ans.org>, as well as on the Canadian Nuclear Society website, <http://www.cns-snc.ca>. The deadline for submission of 1,000-word reduced-length papers is January 7, 2006, so it is not too early to start writing!

A meeting of the Technical Program Committee for PHYSOR-2006 will be held at the ANS Annual Meeting in San Diego, CA, on Tuesday June 7, in the Ascot Room, 4-6 pm. You are warmly invited to attend if you are interested to be on the Technical Committee or to organize a session for PHYSOR-2006.

Wigner Award

By Dimitri Cokinos, Standards Honors and Awards Chair

Review of the 2005 Wigner nominees is now underway. A selection will be made prior to the RPD Executive Committee meeting and the winner's name, if any, will be announced at that meeting.

The Wigner Award is one of the most prestigious awards of the Society. Nominations for persons who have made significant contributions toward the advancement of the field of Reactor Physics may be made using the appropriate form posted on the ANS website (Honors and Awards) and submitted to the ANS Headquarters.

The deadline for applications is April 1st. The candidate need not be a member of the Society or a U.S. citizen.

The Reactor Physics Division is now providing the opportunity for the recipients of the Wigner Award to present a paper in a special lecture series in which the recipient's work that led to the award is highlighted and discussed. The lectures are embedded in one of the Reactor Physics sessions at the Winter Meeting. The Wigner lecture series was inaugurated in November of 2004 by Dr. Richard Hwang, a reactor physicist from Argonne National Laboratory: unanimously selected as the 2004 winner of the Eugene P. Wigner Reactor Physicist Award.

Reactor Physics Standards News

By Dimitri Cokinos, Standards Honors and Awards Chair

Revision and the approval process of the Decay Heat Standard, ANS-5.1, one of the standards enjoying widespread use both in the U.S. and abroad, has been completed.

Consensus Committee N-17 is now reviewing two revised standards, ANS-19.3, "Reaction Rate Distribution and Reactivity in Power Reactors", and ANS-19.6.1, "Reload Startup Physics Tests for PWRs", also a very popular standard.

The completed draft of the new proposed standard, ANS-19.10, "Fast Fluence in the Pressure Vessel," has been submitted to ANS-19, the Reactor Physics Standards Committee for review.

James Mallay, chair of the ANS Standards Board, the highest standards organization within ANS, plans to retire after the June 2005 meeting, following decades of leadership in the ANS

Standards programs. He will be succeeded by Prasad Katambi (U.S. NRC).

D. Cokinos presented two lectures on "Standards in Reactor Physics Design" as part of a short course on "Neutron Transport and Reactor Physics Methods for Next Generation Reactor Design" held at the Korean Advanced Institute of Science and Technology, (KAIST) in Daejeon, South Korea, February 24 and 25, 2005.

RPD Financial Report

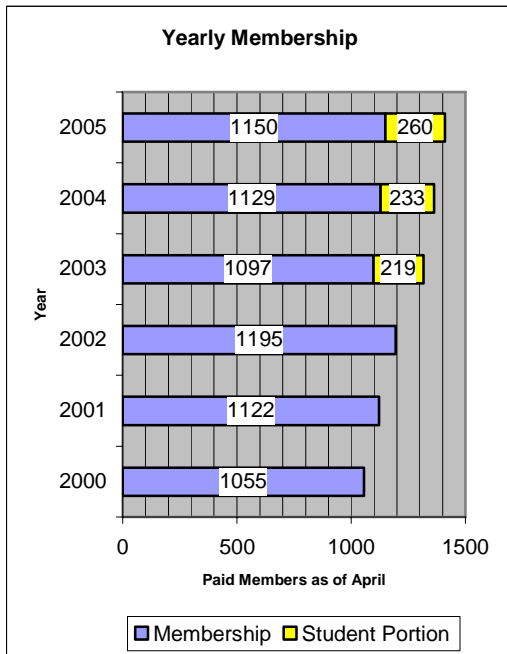
By Ben Rouben, RPD Treasurer

The Reactor Physics Division is in excellent financial health. We ended 2004 with a balance of \$9,505 "in the bank", and we are still owed about \$1,775 as our share of the 2003 M&C Topical and for our participation level in 2004 ANS meetings. Our membership allocation from ANS Headquarters for 2004 was \$1,457 (we receive \$1 for every ANS member who joins the Division). This was 11% more than in 2003, and 22% more than in 2002, so RPD is definitely in a period of high growth!

We made a tremendous \$13,785 in income from Conferences in 2004: \$3,164 from the Advances in Nuclear Fuel Management III Topical, and \$10,618 from PHYSOR-2004. A big thank you is due to the Organizing Committees of those Conferences for the excellent technical success and the surplus achieved by those meetings! The large income allowed RPD to make generous contributions: \$2,000 towards student support (\$1,500 to the Student Conference at the University of Wisconsin, and \$500 for student support at the June 2004 Summer meeting in Pittsburgh), and a large input of \$10,000 towards the Henry/Greebler Scholarship endowment. It is clear that the RPD is enjoying high times, on both the technical and financial sides.

Membership by the Numbers

The healthiness of our division is illustrated by the table below, which shows that our membership has increased since 2000 and has maintained a reasonable enrollment of students.



*Student data not available before 2003
Also, total membership is Membership + Student Portion

RPD Vitality Measures – Calendar Year 2004

By Beard J Johansen, Immediate Past Chair

In 2003, the ANS Professional Divisions Committee (PDC) implemented metrics to gauge the vitality of each ANS Division. These measures are used to identify areas needing attention by the Division and also to help identify and share best-practices among the Divisions.

For 2004, RPD was evaluated as Green (Consistently Excellent – Exceeds ANS Norms) in 14 of the 15 Vitality Measures.

Division Meetings	Division Governance	Division Contribution to Society	Division Services to Membership
National Meeting Participation	Succession Planning	ANS Position Statements	Professional Development
Class I / Class II Topicals	Membership Trends	Participation with Outside Prof. Societies	Scholarships
Class III Topicals	Communications	Society Leadership	Peer Recognition/Awards
	Division Planning	Non-Meeting Publications	Student Support

Reactor Physics Division Website

<http://rpd.ans.org>

Announcements, Bylaws, Charter, Goals, Meeting Minutes, Newsletters

Note from the Editor: This newsletter will be issued twice a year and can be accessed electronically at <http://rpd.ans.org/>. Please feel free to send your newsletter items and comments to me, Farzad Rahnema at farzad.rahnema@nre.gatech.edu

2005-2006 REACTOR PHYSICS DIVISION OFFICERS

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