



## MEETING MINUTES

Meeting minutes were taken by Pavel Tsvetkov, division secretary

Attendance count – 24 attendees (see APPENDIX 2 for the current executive committee membership structure and APPENDIX 3 for the attendee list of the Executive Committee Meeting in Atlanta)

Meeting called to order at 4:00 pm by Ali Haghghat, Division Chair

Meeting agenda distributed (see APPENDIX 1)

### 1. Secretary's Report – Pavel Tsvetkov

#### a. Approval of minutes, November 2012 meeting (San Diego, CA)

The minutes of the winter meeting were distributed earlier via email. Printed copies were distributed at the meeting and additional feedback was solicited.

No feedback was provided by the committee members present.

The Division Chair moved to approve the minutes. The motion was seconded by Ben Forget.

**Outcome:** The Winter meeting minutes were unanimously approved

#### b. RPD Newsletter

Printed copies of the RPD Newsletter were distributed to the committee members present. The letter will be available electronically at the ANS/RPD website after the Annual Meeting.

**Outcome:** The committee acknowledged the release of the Newsletter.

### 2. Treasurer's Report – Ron Ellis

(see APPENDIX 4)

The Reactor Physics Division is in exceptional financial health and continues to prosper due to growing membership and a series of successful recent Topical Meetings.

Our significant balance will allow Reactor Physics Division to continue to make generous contributions in support of students.

The Reactor Physics Division is meeting its objectives for student support. In fact, because of the significant sustained or growing balance, the Division is looking to develop a second Endowed Scholarship, in addition to the current Henry/Greebler Scholarship.

\$1,000 are allocated for web-site maintenance services.

Scholarships and opportunities to establish new scholarships were discussed considering strong standing of the division.



**a. Student Support (National Meetings and Student Conference)**

The division provided \$2,500 to MIT. Support of student travel to annual meetings was discussed.

**Outcome:** The committee expressed the division commitment to continuing support of students and student activities.

**b. 2013 Budget Status (payments, income, pending items, etc.)**

(see APPENDIX 4)

**c. 2013 Budget Proposal**

(see APPENDIX 4)

**3. 2013 Elections Committee Report – Ben Forget**

(see APPENDIX 2)

The following individuals constitute our new Reactor Physics Division Executive Committee leadership team:

- Mark D. DeHart – Chair
- Ronald J. Ellis - Vice Chair
- Fausto Franceshini – Secretary
- Pavel V. Tsvetkov - Treasurer

The following individuals have been elected to serve in the Executive Committee:

- Melissa A. Hunter - Executive Committee
- Moussa Mahgerefteh - Executive Committee
- Bojan Petrovic - Executive Committee
- Jaakko I. Leppanen - Executive Committee - Non-US

**Outcome:** The Committee would like to thank outgoing members and officers and welcome incoming members and officers

**4. 2013 RPD Survey Beta Test – Blair Bromley**

The Reactor Physics Division is conducting an on-line survey of the Reactor Physics Division membership to get their feedback, opinions, and insights on the Reactor Physics Division sessions organized at the ANS Annual Meetings (Winter and Summer).

The data gathered may be used to adjust our technical program to better suit the needs and interests of our membership, thus promoting greater participation for the meetings and provide an updated strategy that, if successful, could be implemented also by other Divisions. The suggestion was made to share the survey results with the PDC (Hans Gougar).

**Outcome:** The committee is looking forward to review the survey results.



## 5. RPD Website Update – differed due to absence of Mark DeHart

The Reactor Physics Division Website is being updated. The website is accessible at <http://rpd.ans.org>

The Reactor Physics Division Facebook presence has been established. The Facebook group is called “Reactor Physics Division of the American Nuclear Society”. The group is accessible at <https://www.facebook.com/groups/ReactorPhysics/>

**Outcome:** The committee expressed its appreciation for the effort.

## 6. Scholarship Committee - Jess Gehin

25 applicants for the Henry/Greebler Scholarship. The scholarship winner is Timothy Burk (Michigan).

The opportunity for the 2<sup>nd</sup> \$2,500 endowed scholarship for undergraduate students has been discussed.

The question about the name for the new scholarship was raised and deliberated.

**Outcome:** The committee acknowledged the need to continue efforts towards establishing the 2<sup>nd</sup> scholarship taking advantage of the RPD strong financial standing.

## 7. Program Committee Updates – Alex Stanculescu/Shannon Bragg-Sitton for Alex Stanculescu

There are between 70-80 papers in 13 sessions in Atlanta. Best papers will be identified. Because of the changes in the electronic summary review process, it was impossible to identify candidates for the Best Paper Award before the meeting. The new process was established to accommodate the situation. Best papers will be first identified on the basis of recommendations from session chairs. The selection process will then proceed to screen the submitted summaries.

The screening/review subcommittee has been established (will be coordinated and finalized by Hany Abdel-Khalik) for the second step of the process. The subcommittee will consist of the EC members volunteering: Akio Yamamoto, Hany Abdel-Khalik, Mark Pierson, Ugur Mertuyurek, Jeremy Conlin, and Pavel Tsvetkov.

### a. 2012 Winter Meeting (San Diego, CA)

The Division sponsored and co-sponsored 11 sessions:

1. Reactor Physics: General
2. Reactor Physics: General
3. Reactor Physics Design, Validation, and Operating Experience
4. Reactor Physics Design, Validation, and Operating Experience
5. Reactor Analysis Methods
6. Reactor Analysis Methods – II
7. Hybrid Monte Carlo Deterministic Methods for Reactor Analysis
8. “I Wonder if...” Special Session in Honor of John Rowlands



9. IAEA Reactor Physics and Technology Development Activities – I
10. IAEA Reactor Physics and Technology Development Activities – II
11. Physics Issues for Small Compact Reactors

**Outcome:** All special sessions made and have good representations of papers and were well attended at the meeting.

#### **b. 2013 Annual Meeting (Atlanta, GA)**

The 2013 Annual Meeting in Atlanta, June 16-20, 2013, is themed as “Next Generation Nuclear Energy: Prospects and Challenges”. The Division sponsored and co-sponsored a number of special sessions in addition to the regular general sessions.

The Division sponsored and co-sponsored 13 sessions and one panel on “Current Issues in LWR Core Design and Reactor Engineering Support”:

1. **Reactor Physics Design, Validation, and Operating Experience—I**, Mon. p.m..  
Session Organizer: A. Stanculescu (INL), Chair: S. Monti (IAEA)
2. **Reactor Physics Design, Validation, and Operating Experience—II**, Tues. p.m..  
Session Organizer: A. Stanculescu (INL), Chair: A. Rineiski (KIT)
3. **Fuel Cycle Design Optimization and Analysis**, Mon. p.m.. Session Organizer: M. Mahgerefteh (Exelon), Chair: S. Monti (IAEA)
4. **Reactor Physics: General—I**, Tues. a.m.. Session Organizer: A. Stanculescu (INL),  
Chair: T. A. Taiwo (ANL)
5. **Reactor Physics: General—II**, Wed. p.m.. Session Organizer: A. Stanculescu (INL),  
Chair: J. C. Gehin (ORNL)
6. **Advanced Modeling and Simulation in Reactor Physics—I**, Tues a.m.. Session  
Organizer: U. Mertyurek (ORNL), Chair: Y. Kim (KAIST)
7. **Advanced Modeling and Simulation in Reactor Physics—II**, Tues p.m.. Session  
Organizer: U. Mertyurek (ORNL), Chair: A. Yamamoto (Nagoya Univ)
8. **Reactor Analysis Methods-I**, Wed. a.m.. Session Organizer: A. Stanculescu (INL),  
Chair: D. Lee (UNIST)
9. **Reactor Analysis Methods-II**, Thu. a.m.. Session Organizer: A. Stanculescu (INL),  
Chair: A. Yamamoto (UNIST).
10. **Physics of Fluid-Fuel Systems—I**, Thu, a.m.. Session Organizer and Chair: P.  
Ravetto (Politecnico di Torino-Italy)
11. **Physics of Fluid-Fuel Systems—II**, Thu, p.m.. Session Organizer: P. Ravetto  
(Politecnico di Torino-Italy), Chair: N. Zin Cho (KAIST)
12. **Student Research in Reactor Physics-I**, Wed a.m.. Session Organizer: M. D. DeHart  
(INL), Chair: J. D. Bess (Battelle Energy Alliance)
13. **Student Research in Reactor Physics-II**, Wed p.m.. Session Organizer: M. D.  
DeHart (INL), Chair: S. Dulla (Politecnico Di Torino)

**Current Issues in LWR Core Design and Reactor Engineering Support—Panel**, Mon. p.m..  
Session Organizer and Chair: M. Mahgerefteh (Exelon). PANELISTS: Steve Baker  
(TransWare), Robb Borland (First Energy), Edward B. Gibson (Southern Nuclear), Thomas  
Remick (SCE), Joy Forster(Duke Energy), James Tusar (Exelon).

**Outcome:** The committee is looking forward for the productive and successful conference.



**c. 2013 Winter Meeting (Washington, DC) (75<sup>th</sup> Anniversary of the ANS at 2013 Washington DC meeting)**

The meeting will celebrate 75th anniversary of ANS. Sessions/panels focused on fission are being organized.

Proposed to organize a special session or a workshop if it is not too late.

**Outcome:** The committee will move forward meeting the submission deadline established.

**8. Topical Meetings (Updates, Requests for Sponsorship)**

Class 4 sponsorship of the meeting in Morocco (International Conference on Physics in Reactor Applications) was discussed and agreed to provide.

Brad Rearden volunteered to serve as a liaison between RPD and the Criticality Safety Division to make sure that divisions are aware of organized conferences and conference sessions/tracks (at PHYSOR 2014 in particular) and are collaborating on relevant topics.

**b. PHYSOR 2014 Planning – Akio Yamamoto**

(see APPENDIX 6)

The next PHYSOR meeting will be held in Kyoto, Japan. The meeting is returning to Japan after 18 years. Kyoto is one of the most historical and beautiful cities in Japan. Conference site: [www.physor2014.org](http://www.physor2014.org)

The meeting will follow traditions of previous PHYSOR meetings. The meeting planning and organization is on schedule.

The technical program will meet the high standards of recent PHYSOR meetings (Interlaken 2008, Pittsburgh 2010, and Knoxville 2012), including timely and relevant special topics. Students will be actively involved in all of the events and activities.

**Outcome:** The PHYSOR 2014 organizational efforts are progressing well and are meeting scheduling requirements.

**9. Standards Committee Update - Dimitrios Cokinos**

The committee chairman, Dr. Cokinos, discussed a good progress being made towards revisions, updates and news developments.

An effort is underway to recognize 5 standards as international standards. ANS 19.10 (PWR/BWR Pressure Vessels and Fast Neutron Fluence) has been discussed.

Moussa Mahgerefteh noted that the Decay Heat Standard should be revised. He was told that the revision is already in progress led by Ian Gould at ORNL.

**Outcome:** The committee acknowledged the important developments in the Standards Committee.



## 10. Honors and Awards Committee Update - Dimitrios Cokinos

The committee is seeking nominations for ANS fellows and Weigner award. The chairman noted low numbers of applicants.

### a. Wigner Award

The review is in progress

**Outcome:** The award will be presented at the next meeting.

### b. ANS Fellows

The committee is seeking nominations for ANS fellows.

**Outcome:** The committee recognized the need for nominating eligible individuals.

### c. Update on Categorization of Division Administered Awards

Young Career awards and lifetime achievement awards were discussed. Blair Bromley suggested focusing on ANS fellows.

**Outcome:** The committee acknowledged the provided information.

## 11. Student Conference

### a. Report on 2013 Conference held at MIT

ANS student conference was hosted by MIT student section in April 4-6, 2013.

The theme of the conference was “Public Image of the Nuclear Engineer”. Conference site: <http://meetings.ans.org/student2013>.

The Division provided financial support to the conference.

The conference was very successful: 637 attendees, 536 students, 88 international students, 131 technical presentations and 65 posters. Workshops were hosted.

**Outcome:** The committee recognized the MIT team for the success of the conference.

### b. 2014 Conference at Penn State (request for support)

The conference organization is on schedule, plans for tours, App contests, labs and demonstrations.

Lodging – off-site.

**Outcome:** The committee acknowledged the provided financial support for the meeting and expressed its confidence of the meeting success.



## **12. Joint Benchmark Committee Report - Hany Abdel-Khalik**

The report was provided on efforts to develop the benchmark handbook contributions.

**Outcome:** The committee suggested to consider special sessions on the subject.

## **13. Goals and Strategic Planning Committee – Ron Ellis**

(see APPENDIX 5)

**Outcome:** The committee formulated the RPD strategic plan.

## **14. Professional Divisions**

### **a. PDC Update (workshop update by Ali Haghghat)**

The workshop was hosted by Hans Gougar.

### **b. Liaison report (Ali Haghghat – PDC Liaison)**

Ali Haghghat explained the role of the PDC and its efforts, discussed publication fees.

The committee noted that proceedings will be published after the conference.

## **15. New Business – Ali Haghghat**

### **a. Response to Audeen Fentiman (Incoming Chair of ANS Planning Committee) on ‘Reactor Physics Division (RPD) Activities and ANS Strategic Plan’**

The response provided.

### **b. Revised Bylaws and Rules Document has been submitted**

The revised Bylaws and Rules Document was submitted.

### **c. Proposal to form a committee on Public information and Website Maintenance, e.g., Fukushima lessons, preparation of a RPD poster.**

The proposal to form a special subcommittee was discussed. The committee was formed (Ali Haghghat, Ugur Mirtyrek, Mark Deinert, and Pavel Tsvetkov).

### **d. Meeting with the ANS President (today) – Ali Haghghat.**

Ali Haghghat discussed the outcomes from the meeting with ANS President, Don Hofmann. Feedback is thought. Activities will be starting on ANS revitalization and change. Recommendations will be posted.



**e. Other topics for discussion**

Blair Bromley suggested to host a teleconference, 1 month in advance, before the committee meetings at the ANS national meetings.

Student retention after graduation was discussed.

Student engagement in RPD was discussed.

**16. Adjournment**

Ali Haghghat moved to adjourn the meeting. The motion carried by the unanimous vote of the executive committee membership present.

Blair Bromley asked the committee to self-organize for the photo opportunity.

Several photos were taken to document the meeting.

**Outcome:** photos from the RPD Executive Committee Meeting are included as APPENDIX 7.

The meeting is adjourn.





**APPENDIX 1. Executive Committee Meeting Agenda**

<u>AGENDA</u>	
<b>Reactor Physics Division Executive Committee Meeting</b>	
<b>Sunday, June 16, 2013, 4:00 - 6:00 PM</b>	
<b>Lenox Room, Hyatt Regency</b>	
<b>Atlanta, GA</b>	
1. Secretary's Report – Pavel Tsvetkov	4 min
a. Approval of minutes, Nov 2012 meeting (San Diego, CA)	
b. RPD Newsletter	
2. Treasurer's Report – Ron Ellis	8 min
a. Student Support (National Meetings and Student Conference)	
b. 2013 Budget Status (payments, income, pending items, etc.)	
c. 2013 Budget Proposal	
3. 2013 Election Results – Ben Forget	3 min
4. 2013 RPD Survey Beta Test – Blair Bromley	10 min
5. RPD Website Update – Mark DeHart	5 min
6. Scholarship Committee - Jess Gehin	5 min
7. Program Committee Updates – Alex Stanculescu/Pavel Tsvetkov	15 min
a. 2012 Winter Meeting (San Diego, CA)	
b. 2013 Annual Meeting (Atlanta, GA)	
c. 2013 Winter Meeting (Washington, DC) (75 <sup>th</sup> Anniversary of the ANS at 2013 Washington DC meeting)	
8. Topical Meetings (Updates, Requests for Sponsorship)	10 min
b. PHYSOR 2014 Planning – Akio Yamamoto	
9. Standards Committee Update - Dimitrios Cokinos	5 min
10. Honors and Awards Committee Update - Dimitrios Cokinos	5 min
a. Wigner Award	
b. ANS Fellows	
c. Update on Categorization of Division Administered Awards	
11. Student Conference	10 min
Report on 2013 Conference held at MIT;	
2014 Conference at Penn State (request for support)	
12. Joint Benchmark Committee Report - Mark DeHart	5 min
13. Goals and Strategic Planning Committee – Ron Elis	5 min
14. Professional Divisions	10 min
a. PDC Update (workshop update by Ali Haghighat)	
b. Liaison report (Ali Haghighat – PDC Liaison)	
15. New Business – Ali Haghighat	17 min
• Response to Audeen Fentiman (Incoming Chair of ANS Planning Committee) on 'Reactor Physics Division (RPD) Activities and ANS Strategic Plan'	
• Revised bylaws and rules has been submitted	
• Proposal to form a committee on Public information and Website Maintenance E.g., Fukushima lessons, preparation of a RPD poster.	
• Meeting with the ANS President (today).	
15. Adjournment	



American Nuclear Society  
REACTOR PHYSICS DIVISION  
Executive Committee Meeting



Sunday, June 16, 2013, 4-6 p.m., Lenox Room, Hyatt Regency, Atlanta, GA

**APPENDIX 2. 2013-14 RPD Officers and Executive Committee (Effective June 2013)**

<b>Chair</b>		<b>Vice Chair/Chair Elect</b>	
Dr. Mark DeHart Idaho National Laboratory Nuclear Systems Design and Analysis Division PO Box 1625 Idaho Falls, ID 83404 Phone: (208) 526-1279; Fax: (208) 526-2930 Email: <a href="mailto:Mark.DeHart@inl.gov">Mark.DeHart@inl.gov</a>		Dr. Ronald J. Ellis Oak Ridge National Laboratory Reactor and Nuclear Systems Division 1 Bethel Valley Road, PO Box 2008 Oak Ridge, TN 37831 Phone: (865) 574-6107; Fax (865) 574-9619 Email: <a href="mailto:ellisrj@ornl.gov">ellisrj@ornl.gov</a>	
<b>Treasurer</b>		<b>Secretary</b>	
Dr. Pavel V. Tsvetkov Associate Professor Department of Nuclear Engineering Texas A&M University 337 Zachry, MS 3133, College Station, TX, 77843-3133 Phone: (979) 845-7078; Fax: (979) 845-6443 E-mail: <a href="mailto:tsvetkov@tamu.edu">tsvetkov@tamu.edu</a>		Dr. Fausto Franceshini Westinghouse Electric Company Phone: (412) 256-1250 Email: <a href="mailto:francef@westinghouse.com">francef@westinghouse.com</a>	
<b>Executive Committee</b>			
<b>2014</b>		<b>2015</b>	
Dr. David W. Nigg Idaho National Laboratory, Corporate Fellow, Nuclear Systems Design & Analysis Division PO Box 1625, Idaho Falls, ID 83404 Phone: (208) 526-7627 Email: <a href="mailto:David.Nigg@inl.gov">David.Nigg@inl.gov</a>		Dr. Sandra Dulla Politecnico di Torino, Dipartimento Energia, Corso Duca degli Abruzzi, 24 10129 Torino, Italy Phone: (+39) 011 090 4416 Email: <a href="mailto:sandra.dulla@polito.it">sandra.dulla@polito.it</a>	
Dr. Mohamed Ouisloumen Westinghouse Electric Company 4350 Northern Pike, Monroeville, PA 15146, USA, Phone: (412) 374-2148 Email: <a href="mailto:ouislom@westinghouse.com">ouislom@westinghouse.com</a>		David S. Orr, PE Duke Energy, P.O. Box 1006 Charlotte, NC 28201-1006 Phone: (704) 382-8673 Email: <a href="mailto:david.orr@duke-energy.com">david.orr@duke-energy.com</a>	
Dr. Ugur Merturek Oak Ridge National Laboratory Reactor and Nuclear Systems Division, 1 Bethel Valley Road, PO Box 2008, Oak Ridge, TN 37831 Phone: (865) 574-5291 Email: <a href="mailto:mertureku@ornl.gov">mertureku@ornl.gov</a>		Dr. Mark Pierson Virginia Tech, Mech. Eng. Dept., Nuclear Engineering Program, 306 Collegiate Square (MC 0710) Blacksburg, VA 24061 Phone: (540) 231-9112 Email: <a href="mailto:mark.pierson@vt.edu">mark.pierson@vt.edu</a>	
Dr. Massimo Salvatores CEA-Cadarache St-Paul-Lez-Durance 13115 France Phone: +33 689104006 Email: <a href="mailto:Massimo.salvatores@cea.fr">Massimo.salvatores@cea.fr</a>		Dr. Jaakko Leppänen, D.Sc. Senior Scientist VTT Technical Research Centre of Finland, Finland Email: <a href="mailto:Jaakko.Leppanen@vtt.fi">Jaakko.Leppanen@vtt.fi</a>	
<b>Program</b>		<b>Standard/Honors &amp; Awards</b>	
Dr. Alexander Stanculescu Idaho National Laboratory Director, Nuclear Systems Design and Analysis (NSD&A) Division 2525 North Fremont Avenue, P.O.Box 1625, Idaho Falls, ID 83415-3860 Phone: (208) 526-5985 Email: <a href="mailto:Alexander.Stanculescu@inl.gov">Alexander.Stanculescu@inl.gov</a>		Dr. Dimitrios Cokinos Brookhaven National Laboratory Building 130, Upton, NY 11973-500 Phone: (516) 344-2146 Fax: (516) 344-3957 Email: <a href="mailto:cokinos@bnl.gov">cokinos@bnl.gov</a>	
		<b>Scholarship/Goals &amp; Membership</b>	
		Dr. Jess Gehin Oak Ridge National Laboratory 2218 Brighton Farms Blvd. Knoxville, TN 37932-1400 Phone: (865) 576-5093 Fax: (865) 574-9619 Email: <a href="mailto:gehinjc@ornl.gov">gehinjc@ornl.gov</a>	
<b>Immediate Past Chair</b>		<b>Past-Past Chair</b>	
Dr. Alireza Haghighat Virginia Tech Research Center 900 N Glebe Road Arlington, VA 22203-0238 Phone: (571) 858-3333 Email: <a href="mailto:haghighat@vt.edu">haghighat@vt.edu</a>		Dr. Benoit Forget Massachusetts Institute of Technology 77 Massachusetts Ave. Room 24-214 Cambridge, MA 02139 Phone: (617) 253-1655 Email: <a href="mailto:bforget@mit.edu">bforget@mit.edu</a>	



APPENDIX 3

Reactor Physics Division Executive Committee Meeting  
Sunday, June 16, 2013, 4-6 p.m., Lenox Room, Hyatt Regency, Atlanta, GA  
ATTENDEE LIST

Executive Committee Meeting June 16	
Paul Tsvetkov	tsvetkov@leuven.edu
Akio Yamamoto	a-yamamoto@nucl.nagoya-u.ac.jp
BEN FORBET	BFORBET@MIT.EDU
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Dimitri Cokinos	cokinos@bnl.gov



American Nuclear Society  
 REACTOR PHYSICS DIVISION  
 Executive Committee Meeting



Sunday, June 16, 2013, 4-6 p.m., Lenox Room, Hyatt Regency, Atlanta, GA

APPENDIX 4. RPD Financial Report

AMERICAN NUCLEAR SOCIETY HISTORICAL INCOME/EXPENSES & 2013 BUDGET/ACTUALS												Notes	
Atlanta GA, June 16th, 2013 Prepared by Ron Ellis, Treasurer, RPD												1/1/2012 - 6/16/2013	
	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	BUDGET 2013	ACTUAL 2013					
<b>REACTOR PHYSICS</b>													
<b>BUDGET FUNDS</b>													
CURRENT YEAR MEMBER ALLOC.	1651	3434	3500	3586	3846	3886	3926	1371					
CARRY FORWARD, PRIOR YEAR	31345	29059	29553	34628	65800	57986	69296	73,272					
DIVISION INCOME /OTHER	-3937	1060	10219	30624	3230	13886	1580	0					
<b>TOTAL BUDGET FUNDS</b>	29059	33553	43272	68838	72876	75758	74802	74643					
<b>BUDGET EXPENSES</b>													
NEWSLETTERS			0	27									
AWARDS, PLAQUES			0	76	80	126						(1.2)	
NATIONAL MEETING COSTS			0	50	443								
DIVISION OFFICER EXPENSE			0	0									
STUDENT SUPPORT		4000	7000	3000	4000	2360	5200	5340				(3.4.5)	
SCHOLARSHIP/NEED FUNDING					10,000	0							
WEB MAINTENANCE					367		1000						
OTHER EXPENSES			1491	38									
<b>TOTAL EXPENSES</b>	0	4000	8644	3038	14890	1912	6200	5340					
<b>EXCESS (DEFICIENCY) OF BUDGET FUNDS OVER EXPENSE</b>	29059	29553	34628	65800	57986	73,272	68602	69303					

- (1) \$62 for June Award Plaque (6/22/2012)
- (2) \$64 for Crown Trophy
- (3) \$2500 for Student travel for 2 national meetings (6/12/2013)
- (4) \$340 for 4 student tickets for President's Reception, Annual Meeting (6/16/2013)
- (5) \$2500 for support to the Student Conference at MIT (3/11/2013)

<b>ENDOWED SCHOLARSHIP (HENRY/GREEBLER)</b>	
Balance 01/01/13	110,758
Plus 4 Months Interest	1,277
Plus Receipts	0
Minus Disbursements	-3,500
Balance 4/30/2012	108,530

To be awarded June 2013 to Jonathan L. Wormald, NCSU.



## APPENDIX 5. Strategic Plan

### Reactor Physics Division (RPD) activities and ANS Strategic Plan (May 26, 2013)

The Reactor Physics Division is engaged in several activities which effectively support the goals of the ANS strategic plan. Following paragraph provides a summary of these activities.

Traditionally, RPD has had an active membership with excellent track record on organizing highly successful international meetings, and special panels and regular sessions on new topics at the national meetings. Further, over the last four years RPD has been organizing a roundtable on recent RPD development and issues, and sponsored half-day or full-day training workshops on computer codes and advanced reactor physics computational methodologies. Finally, the Division has embarked on efforts for the enhancement of its Website, and effective use of it for publicity and engagement of members and public. To this effect, we are in the process of conducting a survey of our membership to learn about their needs and views on both our activities and utilization of the Website.





APPENDIX 6. PHYSOR 2014 Organization Status Update

[Designed by SOLcreate]

# PHYSOR 2014

## International Conference

**“The Role of Reactor Physics toward a Sustainable Future”**

### Call for Papers

The ANS Reactor Physics Topical Meeting is returning to Japan after 18 years. It will be held in Kyoto, which is one of the most historical and beautiful cities in Japan. The technical program will meet the high standards of recent PHYSOR meetings (Interlaken 2008, Pittsburgh 2010 and Knoxville 2012), including timely and relevant special topics. Students will be actively involved in all technical events and activities. Exciting workshops and technical tours will be also offered.

### Important Dates

<b>December 20, 2013</b>	<b>Submission of Full Papers</b>
<b>April 26, 2014</b>	<b>Notification of Acceptance</b>
<b>June 28, 2014</b>	<b>Final Paper Submission</b>

<http://physor2014.org>  
 28th Sep. - 3rd Oct., 2014  
 The Westin Miyako, Kyoto, Japan

Photo by (c)Yunio.Yan (http://www.wyngluna.net)





**Full papers to be submitted to one of the following 15 tracks:**

◆ **Reactor Analysis Methods**

Lattice physics, core analysis, resonance calculation, homogenization, pin power reconstruction, burnup calculation, in-core fuel management and optimization, large scale/high-performance computing, full-core transport analysis, multigroup cross-section generation.

◆ **Deterministic Transport Theory**

Numerical methods, acceleration methods, hybrid methods, high-performance computing for deterministic transport, analytical/numerical transport benchmarks, unstructured grids, stochastic media, charged particle transport.

◆ **Monte Carlo Methods**

Convergence acceleration, burnup analysis, propagation of uncertainty, perturbation calculations, general MC methods, reactor analysis/design applications, variance reduction, code development, modeling LWRs, hybrid MC methods.

◆ **Verification, Validation and Uncertainty Analysis**

Numerical methods and tool developments for S/U analysis, Uncertainty quantification, benchmark analysis, nuclear data adjustment/assimilation.

◆ **Nuclear Criticality Safety**

Burnup credit, nuclear criticality safety benchmarks, verification and validation in criticality safety, spent fuel disposition, spent fuel issues, criticality accident analysis, code development, criticality safety standards, operational practice.

◆ **Reactor Physics Experiments**

Integral experiments and analysis, subcriticality measurement and analysis, reactor physics benchmarks and databases.

◆ **Reactor Concepts and Designs**

Design and analyses of LWRs; HWRS; FRs; GCRs; MSR and others; small modular reactors, advanced designs, status of the advanced reactor programs.

◆ **Reactor Operation and Safety**

Core monitoring, increasing heat resistance, accident tolerant fuel concepts and designs, process heat, hydrogen generation issues, co-generation.

◆ **Transient and Safety Analysis**

Transient analysis methods, multi-physics reactor simulations, reactor physics of spent fuel storage, developments in probabilistic safety assessments, severe accident analysis, safety culture issues.

◆ **Nuclear Data**

Nuclear data measurements, cross section evaluations and libraries, covariance data, testing and validation, status and current nuclear data needs.

◆ **Research Reactors and Spallation Sources**

Research reactor applications, conversion to LEU, recent design features, reactor physics tests and experiments, medium and high flux research reactors, international collaborations.

◆ **Fuel Cycle and Actinide Management**

Advances and developments in use of MOX, Pu management, Th cycles, transuranics and FP management, reactor physics of advanced fuel, hybrid systems, resource management, safeguards.

◆ **Radiation Applications and Nuclear Safeguards**

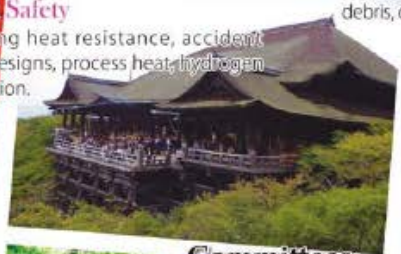
Radiation protection, advances and methods in radiation physics, radiation measurement and dosimetry, nuclear techniques for non-proliferation nuclear forensics, radiation detection methods, inverse physics methods for Pu detection, hybrid methods for real-time monitoring.

◆ **Education in Reactor Physics**

Course development, teaching approaches, role of laboratories and experimental facilities, industry and research perspectives, collaborative efforts of industry and research in education, simulator development for education, staffing needs.

◆ **Research related to Fukushima Accident**

Inventory evaluations and source term analysis, decay heat analysis, recriticality issues, subcriticality monitoring, reactor physics issues during severe accident, safety management for fuel debris, computational and visualization tools.



Photographs courtesy of The Westin Miyako, Kyoto

**Committees:**

**Honorary Chair**

T. Takeoka (Univ. Fukui)

**General Chair**

S. Okajima (JAEA)

K. Nakajima (Kyoto Univ.)

**Technical Program Chair**

A. Yamamoto (Nagoya Univ.)

**Technical Program Co-Chairs**

H. Abdel-Khalik (NCSU)

M. DeHart (INEL)

I. Pazsit (Chalmers Univ. Tech.)

I. Zmijarevic (CEA)

**Steering Committee Chairs**

T. Fukahori (JAEA)

C. Pyeon (Kyoto Univ.)







## Updated status of PHYSOR2014 preparation

Organization Committee of  
 PHYSOR2014  
 June, 2013

## General conference information

- Host: Japan Atomic Energy Agency and Kyoto University
- Organizers : All Japan
  - Reactor physics division of Atomic Energy Society of Japan
  - Major plant vendors (Mitsubishi, Toshiba, Hitachi)
  - Major nuclear fuel and engineering companies
  - Major universities
  - Organization committee has been launched
  - Organization of technical program committee is under progress
- Sponsors
  - Kyoto University
  - Japanese Nuclear Industries
- Current co-sponsors
  - American Nuclear Society, Canadian Nuclear Society, Chinese Nuclear Society, Korean Nuclear Society, NEA, JAEA, AESJ

## Overview of PHYSOR2014

### PHYSOR 2014

*The Role of Reactor Physics towards  
 a Sustainable Future*

- Location
  - The Westin Miyako Kyoto Hotel
  - Kyoto, Japan
- Date
  - September 28 to October 3, 2014

## Conference highlights

- Expected attendees: 400
- Expected papers: 350
- Sessions:
  - 2 plenary sessions
  - 6 half-day technical sessions
  - 1 poster session
- Registration fees: ¥75,000 (\$940)
- (for student) ¥12,000 (\$150)
- Workshops fees: ¥7,000 (\$90)
- Hotel: ¥15,000 - ¥17,000 (\$190-\$210)/night
- Website: www.physor2014.org
- Publication (selected papers): Journal of Nuclear Science and Technology
- Award: best student papers and best poster presentations

## Plenary talk (current plan)

- Advances in reactor physics and computational science
  - Kord Smith, MIT
- Global Perspectives of Nuclear Power
  - TBD
- Status of Nuclear Power in Japan
  - Akira Yamaguchi., Osaka Univ.
- Fukushima Daiichi - update
  - TBD, TEPCO
- Advances in nuclear data
  - R. Forrest, IAEA

## Technical tracks

Reactor Analysis Methods	Transient and Safety Analysis
Deterministic Transport Theory	Nuclear Data
Monte Carlo Methods	Research Reactors and Spallation Sources
Verification, Validation and Uncertainty Analysis	Fuel Cycle and Actinide Management
Nuclear Criticality Safety	Radiation Applications and Nuclear Safeguards
Reactor Physics Experiments	Education in Reactor Physics
Reactor Concepts and Designs	Researches related to Fukushima Accident
Reactor Operation and Safety	

## Track leaders

Sessions	Name	Organization
1.Reactor Analysis Methods	R. Sanchez K. Sanoh C. Donazario H. G. Joe Masashi Togo	CEA MIT Chalmers U. SNJ GNFJ
2.Deterministic Transport Theory	Nam Zin Cho Y. Azmy F. Rubiconi Kazuya Yamaji Takaoi Kitada	KAIST NSU Georgia Tech. U. MHI Osaka U.
3.Monte Carlo Methods	Juho Lee H. J. Shim Taro Ueda	VTT SMU JAEA
4.Verification, Validation and Uncertainty Analysis	H. Akiba-Kishik Go Chiba William F. G. Rooijen	WRSU Hokkaido U. Fuku U.
5.Nuclear Criticality Safety	John Rice Toshihiro Yamamoto Tomohiro Endo	INEL Kyoto U. Nagoya U.
6.Reactor Physics Experiments	Patrick Blain Hiroshi Umezaki	CEA Kyoto U.
7.Reactor Concepts and Designs	B. Petrovic John Lee Liangshu Cao Hiroyuki Takaki	Georgia Tech. U. U. Michigan Nim Roorang U. Tokyo City U.

## Track leaders

8.Reactor Operation and Safety	Glenn Spoden F. Franceschini Takashi Mitsuhashi	Georgia Tech WH Hitachi
9.Transient and Safety Analysis	Fuoro Ravetto S. Dulla K. Iwano Naohiro Ban	Politecnico di Torino Politecnico di Torino Pennsylvania U. Tohoku
10.Nuclear Data	R. Jaqemin Y. O. Lee Satoshi Chiba	CEA KAERI TIT
11.Research Reactors and Spallation Sources	Gert Van den Eynde Ivan Llanas Montoya Kenji Nishihara	SCK/CEN IPEN JAEA
12.Fuel Cycle and Actinide Management	T. Kim A. Worrall Kazufumi Tajimoto	ANL ORNL JAEA
13.Radiation Applications and Nuclear Safeguards	Sara A. Pozzi Yasumori Kitamura	Michigan U. JAEA
14.Education in Reactor Physics	Ben Forget Tomasz Kozlowski Takamasa Kameyama	MIT Hitachi U. Tokai U.
15.Research related to Fukushima Accident	A. Hochhafer S. Kozuka Eun-ja Song	Villanova Tech MHI INIA





### Special sessions

- Molten Salt Reactors
  - Prof. Imre Pázsit, Chalmers
- Reactor Physics and Criticality Safety Activities in OECD/NEA Working Party
  - Dr. Mark DeHart, INL
- Hybrid particle transport methods for solving complex problems in real-time
  - Prof. A. Haghghiati, VT
- Advanced Geometry Processing in Deterministic and Monte Carlo Methods
  - Prof. Shim, SNU
- Multi-scale, Multi-physics Methods for Reactor Physics
  - Dr. Mark DeHart, INL
- Nuclear Criticality Safety of Fuel Debris
  - Prof. Takaki, Tokyo City U.
- Control Rod Withdrawal Tests Performed During the PHENIX End-of-Life Experiments
  - Dr. Stefano Monti, IAEA

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### Workshops (tentative)

Title	Organizer	Note
Sensitivity and Uncertainty Analysis	Dr. H. Abdel-Khalik, NCSU	confirmed
Accelerator-Driven System	Kyoto Univ., JAEA	confirmed
Update on Fukushima-Daiichi accident PHITS Monte Carlo code	AESJ or TEPCO JAEA	confirmed confirmed
Reactor diagnostics	Dr. Imre Pázsit, Chalmers Univ.	confirmed
SERPENT Monte Carlo code	Dr. J. Leppänen, VTT	confirmed
Multiscale, multiphysics approaches in nuclear science and engineering applications	Dr. R. Marinneau, INL	confirmed
ATTILA Transport code	Transpire	confirmed
Advanced Hybrid Particle Transport Computational Tools for Reactor Physics Analysis	Prof. Alireza Haghghiati, Prof. Rahnama, Prof. Sjoden, and Prof. Petrovic	confirmed

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### Organizing committee

- Honorary chair
  - Toshikazu Takeda, Fukui University
- General chairs
  - Shigeaki Okajima, JAEA
  - Ken Nakajima, Kyoto University
- Technical program co-chairs
  - Akio Yamamoto, Nagoya University
  - Hany Abdel-Khalik, NCSU
  - Mark DeHart, INL
  - Imre Pázsit, Chalmers University of Technology
  - Igor Zmijarevic, CEA

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### Organizing committee

- Steering: steering, adjustment
  - Tokio Fukahori (JAEA)
  - Cheolho Pyeon (Kyoto Univ.)
  - +14 members
- Publications: Call for paper, abstract, CD, journal for selected papers
  - Go Chiba (Hokkaido Univ.)
  - +5 members
- Website: Registration, paper submission, review
  - Kenji Yokoyama (JAEA)
  - +2 members
- Finance: Financial management
  - Teruhiko Kugo (JAEA)
  - +6 members
- Local committee: Technical tour, guest tour, banquet
  - Cheolho Pyeon (Kyoto Univ.)
  - +5 members

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### Project status

▪ Official organizing committee:	Nov. 2012	Done
▪ 1 <sup>st</sup> Call for papers:	Nov. 2012	Done
▪ Technical program committee:	Nov. 2012	Done
▪ Launch website:	Feb. 2013	Done
▪ 2 <sup>nd</sup> Call for papers:	Apr. 2013	Done
▪ Paper template upload:	Apr. 2013	Done
▪ Nominate reviewers:	July. 2013	Under progress
▪ Paper submission open:	Oct. 2013	Under progress
▪ <b>Papers deadline:</b>	<b>Dec. 20, 2013</b>	
▪ Papers review:	Jan-Apr. 2014	
▪ Author notification:	Apr. 26, 2014	
▪ Final paper submission:	Jun. 28, 2014	
▪ Meeting:	Sep. 28-Oct.3 2014	
▪ Selection of papers:	~Jan. 2015	
▪ Publication of selected papers:	Mar~. 2015	

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**PHYSOR 2014**  
 International Conference  
 "The Role of Reactor Physics toward a Sustainable Future"

Status of preparation:  
 On schedule

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American Nuclear Society  
REACTOR PHYSICS DIVISION  
Executive Committee Meeting



Sunday, June 16, 2013, 4-6 p.m., Lenox Room, Hyatt Regency, Atlanta, GA

APPENDIX 7

