



# Minutes

## Reactor Physics Division Executive Committee Meeting

June 16, 2016

4:00 p.m. – 6:00 p.m. Strand 10AB, Hyatt Regency, New Orleans, Louisiana

1. Call to Order at 5:21 pm – **Pavel Tsvetkov**  
The Reactor Physics Division (RPD) Executive Committee Meeting was called to order at
2. Distribution of Attendance Sheet – **Todd Palmer**  
The attendance sheet was distributed.
3. Executive Committee Membership – **Pavel Tsvetkov**  
Ellis reported that the Spring 2015 RPD newsletter was distributed to the RPD members.
  - a. Executive committee members and officers completing their terms were acknowledged.
  - b. Newly elected executive committee members and officers were reported.
4. Secretary's Report – **Todd Palmer**
  - a. Meeting minutes from the November 2016 meeting (Washington DC) were not available to be approved. Minutes will be distributed and approved by email vote later in June, 2016.
  - b. It was mentioned that the RPD Spring Newsletter (Spring 2016 edition) was issued and distributed to RPD members.
5. Treasurer's Report – **Arzu Alpan/Fausto Franceschini**
  - a. Budget status (payments, income, pending items, etc.) was reported (see attachment).
  - b. The RPD budget was approved.
6. RPD Website, Facebook page, Social Media Update – **Fausto Franceschini/Pavel Tsvetkov**  
Tsvetkov indicated that ANS developed two templates for professional division websites and pointed out that the website should be kept up to date.
7. ANS PHYSOR 2016 – Mark DeHart  
Mark Dehart provided a report on the outcomes of the PHYSOR 2016 meeting in Sun Valley Idaho during the RPD Program Committee Meeting, and Pavel Tsvetkov referred to some of the details in his presentation (attached).
8. ANS Student Conference Status Update  
Please see the attached minutes from the Program Committee meeting for details of the previous and upcoming ANS Student Conferences.
9. RPD Scholarships– **Ben Forget**  
Ben Forget provided a report from the Scholarship Committee that was included in Pavel Tsvetkov's presentation to the Executive Committee. [See attached.]



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10. Program Committee Updates – **Cristian Rabiti**  
In the interest of time, no formal Program Committee updates were provided. However, the minutes of the Program Committee Meeting (2:00-5:15 pm, Strand 10AB) are attached to these minutes.
11. Standards Committee Update – **Dimitrios Cokinos/Pavel Tsvetkov**  
Dimitrios Cokinos provided a report from the Standards Committee that was included in the presentation given by Pavel Tsvetkov. That presentation is included as an attachment to these minutes.
12. Honors and Awards Committee Update – **Dimitrios Cokinos/Pavel Tsvetkov**  
Dimitrios Cokinos provided a report from the Standards Committee that was included in the presentation given by Pavel Tsvetkov. That presentation is included as an attachment to these minutes. A question was raised as to the reason for giving two Wigner awards this year, and no answer was available.
13. Goals and Strategic Planning Committee – **Pavel Tsvetkov**  
Pavel Tsvetkov's presentation to the Executive Committee contains details of the outcomes of the Goals and Strategic Planning Committee meeting. [See attached.] There was discussion around the value of joining ANS and specifically what members receive from RPD, if membership growth is important. Andrew Merton tasked with drafting the value case.
14. Professional Divisions Workshop Update – **Pavel Tsvetkov**  
See the New Business section of these minutes.
15. Liaison report – **Board Liaison**  
A board liaison was not present.
16. New Business
  - a. Chair-Elect Andy Klein is seeking ideas for Grand Challenges in Nuclear Science and Engineering for the ANS
  - b. Federal agency perspective is that there is more recognition for nuclear, but on the industry side there is less support
  - c. Membership is a primary focus for ANS.
  - d. President Grecheck discussed the issue of folks experiencing a lack of inclusiveness. Trying to express that the ANS is a welcoming and diverse society. Respectful behavior policy was also distributed.
17. Adjournment – **Pavel Tsvetkov**  
Tsvetkov adjourned the meeting at 5:46 pm.

Respectfully submitted,

Todd S. Palmer, RPD Secretary

Attachments: RPD Executive Committee Meeting Attendance Sheet  
Presentation given by Pavel Tsvetkov to Executive Committee  
Minutes from the Program Committee Meeting, June 12, 2016

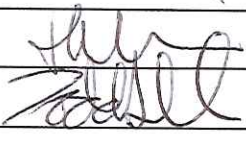

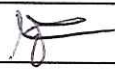
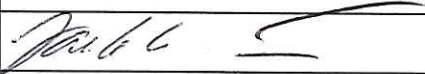
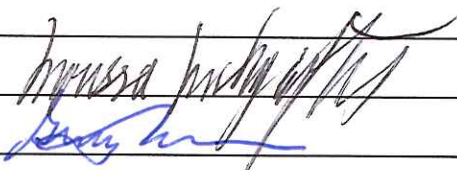
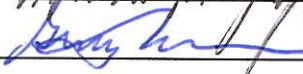



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**RPD Executive Committee Meeting Attendance Sheet**

**Reactor Physics Division  
Executive Committee Meeting  
Hyatt Regency New Orleans Hotel  
New Orleans, LA  
June 2016**



Name	Initial when present
Only those listed below are voting members of your division	
Pavel V. Tsvetkov, Chair	
Fausto Franceschini, Vice Chair	 francet@westinghouse.com
Todd Palmer, Secretary	 palmerts@ne.orst.edu
Arzu Alpan, Treasurer	
Ronald J. Ellis, Immediate Past Chair	
Anna S. Erickson	
Massimiliano Fratoni	
Melissa A. Hunter	
Tomasz Kozlowski	
Jaakko I. Leppanen	
Gianluca Longoni	
Moussa Mahgerefteh	
Guy Marleau	
Stefano Monti	
Bojan Petrovic	
Russell E. Stachowski	
<b>Others, please PRINT in</b>	(if there is not enough space, feel free to use the other side)
Name	E-mail
BLAIR BROMLEY	blair.bromley@cnl.ca
John Darrell Bess	John.Bess@inl.gov
Jess C. Gehin	JGehinJC@ornl.gov
Jeremy Roberts	jrobertse@ksu.edu
Stephanie Kempf	SAKempfNE@qma.i.com

Article B10.2 - A quorum for the transaction of business at all Division (or TG) meetings shall consist of fifteen (15) qualified voters or twenty (20) percent of the qualified voters.





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**Chair's Presentation to the Executive Committee (Pavel Tsvetkov)**



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## Reactor Physics Division

- **Goals and Planning Committee Meeting**
  - Engagement strategies with other divisions
  - Engagement with YMG
  - Standing committees – practices vs. RPD rules
  - Our membership. Do we need to recruit into RPD?



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## Reactor Physics Division

### ■ Executive Committee Meeting

- Welcome! Introductions
  - Secretary Report
  - Treasurer Report
  - Website, Facebook
  - PHYSOR 2016
  - ANS Student Conference
  - Scholarship Committee
  - Program Committee
  - Standards Committee
  - Honors and Awards Committee
  - Goals and Strategic Planning Committee
  - Professional Divisions Committee Workshop
  - Liaison Report
  - New Business – ANS President Meeting, Metrics, Plans
  - Discussion
- Adjournment – 6 PM





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# Reactor Physics Division

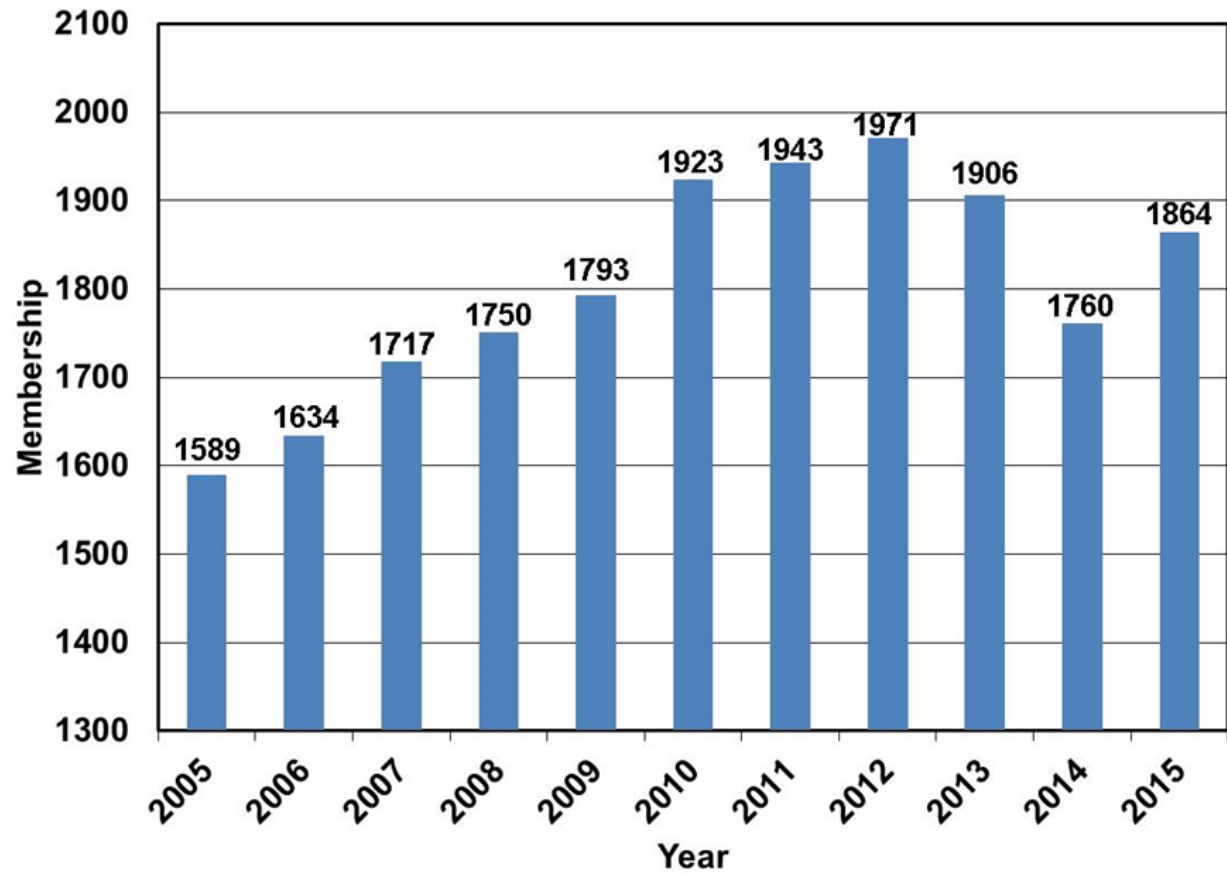
Visit: <http://collaborate.ans.org/home> Bookmark this link!

The screenshot shows a web browser window with the address bar containing [collaborate.ans.org/home](http://collaborate.ans.org/home). A red arrow points to the address bar. The page header includes links for [Contact Us](#), [www.ans.org](#), and a [Sign in](#) button, with a red arrow pointing to the Sign in button. The main navigation bar contains: Home, Groups, Network, Events, Browse, and Participate. A search bar is located on the right side of the navigation bar. The main content area features a "Welcome" section with the following text: "ANS Collaborate is the online tool for members who serve in ANS leadership: the Board of Directors, standing and special committees, and professional division executive committees. Its purpose is to give you enhanced capabilities to conduct the work of your leadership group: to work on projects, to share documents, to participate in discussions, and to help plan and manage your group's projects and other activities." To the right of the text is an illustration of two human heads in profile, each with a glowing lightbulb inside, symbolizing ideas and collaboration. Below the illustration, the text "Engage. Share. Develop." is displayed in a large, bold font.



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# Reactor Physics Division

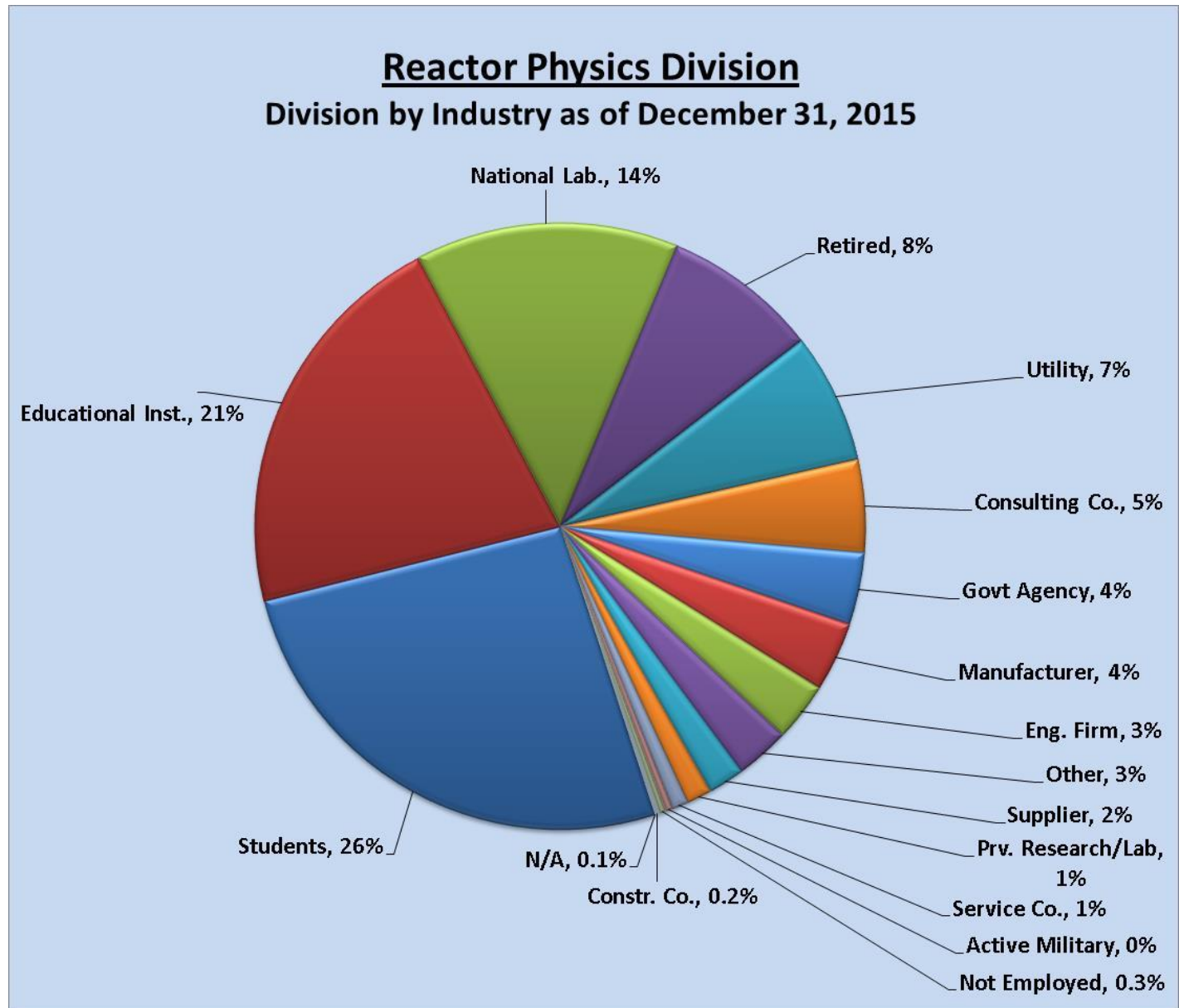


<u>% of ANS Membership</u>											
	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
ANS	10,777	10,783	10,772	10,851	10,938	11,137	11,557	11,361	11,228	11,083	10,465
RPD	1492	1589	1634	1717	1750	1793	1923	1943	1971	1906	1760
RPD%	13.8%	14.7%	15.2%	15.8%	16.0%	16.1%	16.6%	17.1%	17.6%	17.2%	16.8%



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## Reactor Physics Division





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# Reactor Physics Division

## TREASURER'S REPORT

Arzu Alpan

[alpanfa@westinghouse.com](mailto:alpanfa@westinghouse.com)

Reactor Physics Division Treasurer, 2015-2016

The latest RPD financials were received from ANS in November 2015, providing the 3<sup>rd</sup> quarter financials of 2015. Based on the 3<sup>rd</sup> quarter financials of 2015 and the anticipated expenses in the remaining of 2015, it is estimated that the RPD 2015 year-end fund balance was \$31,608.

The major RPD expenses in 2016 consisted of the following:

- Student support (\$2,500 was given to the 2016 ANS Student Conference and \$1,000 was given to the ANS Student Program for assistance to students to attend the 2016 ANS Annual and 2016 ANS Winter Meetings)
- Lineberry Scholarship (a contribution of \$5,000 and \$6,500 was provided in 2015 and 2016, respectively)
- Rudi Stamm'ler Reactor Physics Division Scholarship (\$6,000 was contributed in 2016; the balance in the Stamm'ler fund is about \$33,000)

It is expected that the RPD will receive approximately \$3,500 from membership dues and \$42,000 from PHYSOR 2016 this year, and continues to have excellent financial health.



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# Reactor Physics Division

## REACTOR PHYSICS STANDARDS

- Revision of ANSI/ANS-19.1, Nuclear Data Sets for Reactor Design Calculations is proceeding with the WG and ANS-19 approval and publication targeted by the end of the year.
  - ANSI/ANS-19.3, Steady State Neutronics Methods for Power Reactor Analysis has a new WG Chair. Expansion to the areas of subcriticality and inclusion of generic HWRs are among the improvements planned for the next revision. This standard, with appropriate format modifications, is being adopted by the ISO.
  - ANSI/ANS-19.6.1, Reload Startup Physics Tests for PWRs is being reaffirmed. This standard too is being adopted by the ISO.
  - ANSI/NS-19.11, MTC for PWRs, is being reaffirmed
  - ANSI/ANS-5.1, Decay Heat Power in Light Water Reactors, has been recently updated. It is widely used both here and abroad
  - ANSI/ANS-19.4 Acquisition and Documentation of Reference Power Reactor Physics Measurement for Nuclear Analysis Verification, being revised under new WG Chair.
- STANDARDS IN NEED OF REVISION
- Thermal Energy Deposition (ANSI/ANS-19.3.4)
  - Requirements for Reference Power Reactor Physics Measurements (ANSI/ANS-19.5)

**VOLUNTEERS NEEDED TO WORK ON STANDARDS. The next ANS-19 Meeting will be held tomorrow Monday morning 8:30 – 10:30 am at STRAND 7. Interested persons are welcome to attend**



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# Reactor Physics Division

## HONORS & AWARDS

### 2016 Wigner Award

The RPD H&A Committee is happy to announce that **Luiz C. Leal** and **Mark L. Williams**, both of ORNL, have been selected to receive the 2016 Eugene P. Wigner Reactor Physicist Award.

Leal's outstanding contributions include measurements, evaluation and applications-processing of neutron cross sections, measurements to extend and improve resonance data for many important nuclides and enhancements in the theory of resonance data evaluation with algorithms which include differential and integral data uncertainties and sensitivities.

Williams's outstanding achievements in Reactor Physics include innovative contributions to resonance self-shielding theory, development of continuous-energy deterministic transport calculation for lattice physics applications, leadership in the development and generation of cross section covariance data.

*NOTE: RPD Members are invited to nominate individuals for the Wigner Award, who have made outstanding and lasting contributions towards the advancement of the field of Reactor Physics. Details appear on the ANS H&A website.*

*Nominations are also sought for potential candidates for the "Early Career Award", a new RPD award that recognizes significant technical accomplishments in the field of reactor physics by RPD members who are 39 years old or younger.*

D. Cokinos  
cokinos@bnl.gov  
June 12, 2016



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# Reactor Physics Division



## ANS Reactor Physics Division

2016 Election Results



**Fausto Franceschini**  
**Chair**

Fellow Engineer, Westinghouse Electric Company



**Arzu Alpan**  
**Vice Chair**

Principal Engineer, Radiation Engineering & Analysis Group, Westinghouse Electric Company, Cranberry Township, PA



**Florent Heidet**  
**Secretary**

Principal Nuclear Engineer, Argonne National Laboratory, Argonne, IL



**Todd S. Palmer**  
**Treasurer**

Professor, School of Nuclear Science and Engineering, Oregon State University, Corvallis, OR.



**Luiz C. Leal**  
**Executive Committee**

Presently Deputy of the Laboratory of Expertise and Research in Neutron Reactor Applications at the Institut de Radioprotection Sûreté Nucléaire (IRSN), France



**Andrew Worrall**  
**Executive Committee**

Senior Scientist, Reactor Physics Group, Oak Ridge National Laboratory



**Gilles J. Youinou**  
**Executive Committee**

Department Manager, Reactor Physics Analysis & Design, Idaho National Laboratory



**Juan-Luis François**

**Executive Committee-Non-US - RPD**  
Professor, National Autonomous University of Mexico



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**Minutes of the RPD Program Committee Meeting, June 12, 2016**



## **RPD Program Committee Meeting**

June 12, 2016 Strand 10A/B, Hyatt Regency Hotel, New Orleans, Louisiana

Called to Order by Cristian Rabiti, 2:05 pm

- Bids for PHYSOR 2008

### **1. Florida Local Section, Presented by Sedat Goluoglu**

Most details are assumed to be similar to that of PHYSOR 2016. Hotel cost is expected to be \$189 (500 rooms), number at government rate is not solid yet.

General Chair – Cindy Pezze (Westinghouse)

Technical Program Chair - Sedat Goluoglu (University of Florida)

Lots of prior experience with technical meetings

Asst. Tech. Program Chairs – Mark DeHart (INL), Deokjung Lee (UNIST),

Laurent Chabert (AREVA)

Organizing Committee Members – Zander Mausolff, Kristin Smith (University of Florida)

Location: Ponte Vedra FL

Hotel: Sawgrass Marriott

Nine potential sponsors identified

Relatively mature budget with RPD and Local Section splitting about \$82,000

Typical conference schedule

Flights go into Jacksonville International Airport

Special events: Lightner Museum, Black Raven Pirate Ship, St. Augustine

Distillery Company, Cape Canaveral, Golf Tournament, Tours to Disney World,

Deep-Sea Fishing

April 29-May 3, 2018

Registration fees cover reception, lunches, banquet.

### **2. Canadian Nuclear Society, Presented by Guy Marleau**

Logo is already designed

Theme: Reactor Physics for the 21<sup>st</sup> Century

Date: 9/30-10/4

Hotel Sheraton on the Falls

Niagara Falls, Ontario, Canada

Honorary Chairs: TBD

General Chair: Adriaan Buijjs (McMaster University)

Technical Program Chair: Wei Shen (Canadian Nuclear Safety Commission)

Typical organization structure: (Four days, plenary on Monday, poster session, workshops on Sunday)

Plenary: Status of Gen IV reactors

Many individuals identified as track leaders

Student Program: best poster/paper, professional development session, financial support for students  
Workshops: six or seven codes committed at this point  
Reception on Sunday, wine and cheese with poster session, 1 or 2 hosted lunches, conference banquet on Tuesday or Wednesday, exhibit area, online program and proceedings on USB  
Typical registration fees (\$800 early registration), expected attendees: 390  
Profit expected to be \$120k (75% CNS, 25% ANS)  
Technical tours: McMaster University reactor, CANS (Center for Advanced Nuclear Systems), Stern Laboratories,  
Guest Program: Wine and Craft Beer Tours, Niagara on the Lake  
Potential Sponsors: Canadian Utilities, Engineering Consulting Companies, Government Organizations, Simulation Software Vendors  
CNS has a long history of organizing conferences

### **3. Mexican Nuclear Society**

Location: Cancun  
Hotel Marriot Casa Magna  
Date: April, 2018  
Theme: Reactor Physics Paving the Way Towards More Efficient Systems  
Honorary Chair: Dr. Lydia Paredes (ININ)  
General Chair: Gustavo Alonso (ININ)  
Many individuals identified by name  
Many track leaders identified by name  
Estimated 400 attendees, full day of plenary sessions, \$750 early registration, hotel rate \$153  
Outstanding paper, outstanding poster, outstanding student paper awards  
Workshops on Sunday  
Technical tracks on typical subjects.  
8 potential sponsors identified  
Class II meeting  
Profit share: 75% SNM, 25% RPD  
Lots of experience organizing and hosting technical meetings  
Mayan Culture tours  
Four parallel sessions, lunches will be provided  
No estimated total profit

### **4. Northeast New York Local Section, Presented by Tim Donovan**

Theme: Innovation through Simulation Experiment and Theory (ISET)  
Location: Saratoga Springs, NY  
Date: April 15-19, 2018  
See attached presentation...

After a vote of the Technical Program Committee, Cancun Mexico will be the location of PHYSOR 2018. [Ranking of bidding 72, 69, 66, 63]

- Todd Palmer taking minutes for the Program Meeting
- ANS 2016 National Meeting minutes were approved.
- Presentation from students from the University of Wisconsin summarizing the 2016 Student Conference. [All student travel expenses were covered by the organizers.] Organizers were very appreciative of
- Presentation from students from the University of Pittsburgh, the site of the 2017 ANS Student Conference. Theme: “Dispelling nuclear myths”. Requesting sponsorship, and award definitions. Date: April 2017. Also seeking judges and reviewers.
- Mark DeHart spoke on the outcome of the PHYSOR 2016 meeting. [See attached presentation.]
- Special sessions: 4 have been proposed, and all were approved.
- Reviewers for best paper awards were identified: Fausto Francheschini, Massimiliano Fratoni, Stephanie Kempf, Amanda Lang. Six papers have been identified for the evaluation of presentations.
- Suggestion made to document the process for best paper identification and review and that this be added to the bylaws for the division. Another suggestion was made that the process for adding/deleting members of the Program Committee be documented as well.
- The issue of the sequence of PHYSOR meetings, and criteria for the evaluation of bids and the composition of the bids was discussed. Guidelines for the bidding should be established. Discussion ensued, but it was recessed for a more formal proposal on this information.
- Cristian Rabiti provided an overview of papers at the ANS national/annual meetings. [See the data presented in the report in the Spring Newsletter.]
- New/old members of the Program Committee: see the list provided by Cristian Rabiti.

Adjourned at 5:21 pm.

Being a Critical Member



of the Nuclear Industry

## 2016 ANS Student Conference University of Wisconsin-Madison

### ***Conference Summary***

*Total attendance: **568** (438 students and 130 professionals)*

*Universities represented: **50***

*Companies represented: **39***

*Countries represented: **9***

*Total funds raised for the conference: **\$209,150***


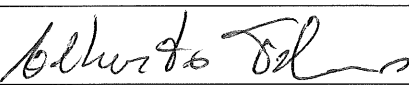





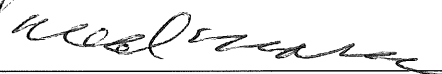
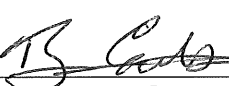


*Total amount distributed as student travel reimbursement: **\$61,057***

*Number of presentations: **157** (7 innovations, 117 podium presentations, and 31 poster presentations).*

*Events: **10** tours, **9** workshops, and **12** panels*

*Complete list of award winners is available at [ansstudentconference2016.com/awards](http://ansstudentconference2016.com/awards).*

PROGRAM  
RPD TECHNICAL COMMITTEE ATTENDANCE

Name	email	Signature
Scott Palmtag	palmtag@gmail.com	
Dr. Chad Pope	Chad.Pope@inl.gov	
Prof. Piero Ravetto	Piero.Ravetto@polito.it	
Dr. Cristian Rabiti	cristian.rabiti@inl.gov	
Dr. Wei Shen	wei.shen@canada.ca	
Dr. Eugene Shwageraus	es607@cam.ac.uk	
Dr. Alexander Stanculescu	Alexander.Stanculescu@inl.gov	
Dr. Nicolas Stauff	nstauff@anl.gov	
Dr. Gerhard Strydom	gerhard.strydom@inl.gov	
Dr. Alberto Talamo	alby@anl.gov	
Prof. Won Sik Yang	yang494@purdue.edu	
GABRIEL GALEROS	gallerosm@yahoo.com	
FAUSTO FRANCESCHI	franceff@westphor.com	
MASSIMILIANO FRATONI	maxfratoni@heskelop.edu	
RUSSELL STACHOWSKI (ENSC.COMP.)	RUSSELL.STACHOWSKI@GNF.COM	
Jeremy Roberts	Jaroberts@ksu.edu	
Neal Mann	neal@nealmann.com	
Brianna Carlson		
David Genevich	David.Genevich@gmail.com	
Tim Donovan	timothy.donovan@unnpp.gov	

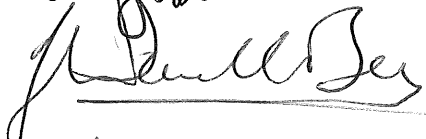
Hailey Green

hailey.green@unnpp.gov



John Bess

John.Bess@inl.gov



BLAIR BROMLEY Blair.Bromley@cnl.ca

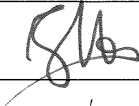


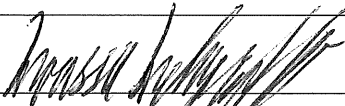

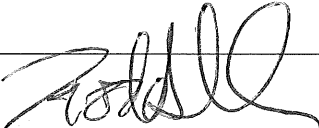
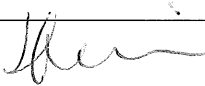

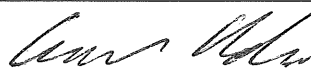
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Blair Bromley





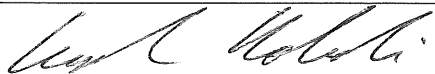
PROGRAM  
RPD TECHNICAL COMMITTEE ATTENDANCE

Name	email	Signature
Prof. Hany Abdel-Khalik	abdelkhalik@purdue.edu	
Dr. Andrea Alfonsi	Andrea.Alfonsi@inl.gov	
Dr. Jeffery A. Brown	brown1ja@westinghouse.com	
Nicholas R. Brown, Ph.D.	nbrown@bnl.gov	
Prof. Liangzhi Cao	caolz@mail.xjtu.edu.cn	
Dr. Andrew M. Casella	andrew.casella@pnnl.gov	
Benjamin S Collins	collinsbs@ornl.gov	
Dr. Jeremy Conlin	jlconlin@lanl.gov	
Dr. Aldo dall'Osso	aldo.dalosso@areva.com	
Prof. Mohamed Abdelhalim ElSawi	mohamed.elsawi@kustar.ac.ae	
Dr. Bo Feng	bofeng@anl.gov	
Dr. Sedat Goluoglu	goluoğlu@mse.ufl.edu	
Dr. Florent Heidet	fheidet@anl.gov	
Dr. Mathieu Hursin	Mathieu.Hursin@psi.ch	
Dr. Germina Ilas	ilasg@ornl.gov	
Dr. Tatjana Jevremovic	Tatjana.Jevremovic@utah.edu	
Dr. Wei Ji	jiw2@rpi.edu	
Dr. A. C. (Skip) Kahler	akahler@lanl.gov	
Dr. Stephanie Kempf	SAKempfNE@gmail.com	
Prof. Takanori Kitada	kitada@see.eng.osaka-u.ac.jp	
Dr. Moussa Mahgerefteh	moussa.mahgerefteh@exeloncorp.com	

BID PHYSOR 2018


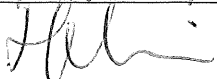


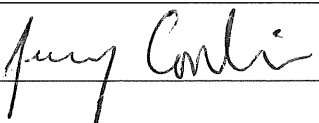




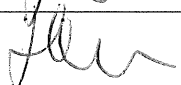
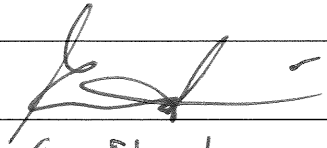

Name	Signature
Dr. Mathieu Hursin ( <del>Florent Hadet</del> )	
Dr. <del>Germina Has</del>	
Dr. <del>Tatjana Jevremovic</del>	
Dr. <del>Wei Ji</del>	
Dr. A. C. (Skip) <del>Kahler</del>	
Dr. <del>Stephanie Kempf</del>	conflict
Prof. <del>Takanori Kitada</del>	
Tomasz Kozlowski ( <del>Cristian Rabiti</del> )	
Jaakko <del>Leppanen</del>	
Gianluca <del>Longoni</del>	
Dr. Moussa Mahgerefteh	
Guy <del>Marleau</del>	conflict
Stefano Monti ( <del>Cristian Rabiti</del> )	
Moussa <del>Mahgerefteh</del>	
Todd <del>Palmer</del>	
Scott <del>Palmtag</del>	
Bojan <del>Petrovic</del> ( <del>Fausto</del> )	
Dr. <del>Chad Pope</del>	
Prof. Piero <del>Ravetto</del>	
Dr. Cristian <del>Rabiti</del>	
Dr. Wei <del>Shen</del>	(Kan Wang)

**BID PHYSOR 2018**

Name	Signature
Dr. Eugene Shwageraus	
Russell E. Stachowski	
Dr. Alexander Stanculescu	
Dr. Nicolas Stauff (Bo)	
Dr. Gerhard Strydom	
Dr. Alberto Talamo	
Pavel Tsvetkov	
Prof. Won Sik Yang (Christian Roberts)	
Mohammed El Sawi (Paul)	
Takanori Kitada	



**BID PHYSOR 2018**

Name	Signature
Prof. Hany Abdel-Khalik	conflict
Dr. Andrea Alfonsi	
<del>Arzu Alpan</del>	
<del>Dr. Jeffery A. Brown</del>	
Nicholas R. Brown, Ph.D.	(Florent Heidet) 
Prof. Liangzhi Cao	(Schichang Liu)
<del>Dr. Andrew M. Casella</del>	
<del>Dimitrios Cokinos</del>	
<del>Benjamin S Collins</del>	
Dr. Jeremy Conlin	
<del>Dr. Aldo dall'Osso</del>	
Prof. Mohamed Abdelhalim ElSawi	Pavel 
Anna Erickson (Pavel)	
Dr. Bo Feng	
Benoit Forget (Fausto)	
<del>Fausto Franceschini</del>	
<del>Juan-Luis Francois</del>	
Massimiliano Fratoni	
Dr. Sedat Goluoglu	Conflict
Dr. Florent Heidet	
*Melissa Hunter gone!!	



Northeastern New York Section  
American Nuclear Society



Proposal for the  
PHYSOR 2018 Topical Meeting on Reactor Physics

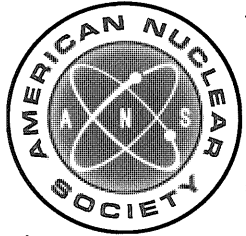
*“Innovation through Simulation, Experiment, and Theory”*

Saratoga Springs, NY  
April 15-19, 2018

Presented to ANS Reactor Physics Division Program Committee  
Tim Donovan\*, General Chair, NENY ANS Organizing Committee

ANS Annual Meeting, June 12, 2016  
New Orleans, LA

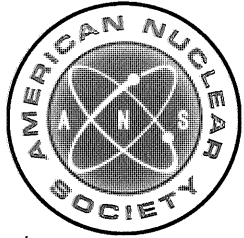
\* email @ [timothy.donovan@unnpp.gov](mailto:timothy.donovan@unnpp.gov)



# Outline



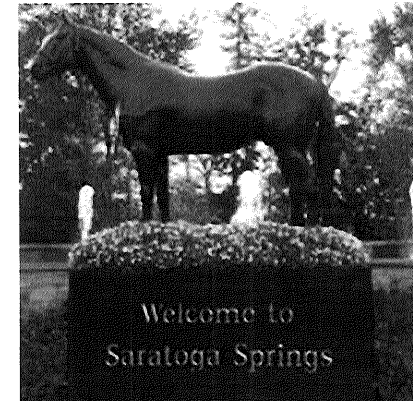
- General Meeting Information
- Saratoga Springs, NY USA
- Hotel Facilities
- Organizing Committee
- Technical Program Committee
- Co-sponsoring Organizations
- Session Topics
- Preliminary Workshop Options
- Special Events
- Meeting Planning Schedule



# General Meeting Information



Location → Saratoga Springs, NY  
Venue → The Saratoga Hilton  
Dates → April 15-19, 2018



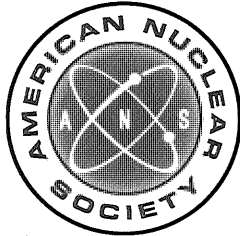
Experienced Organizers with proven track record

## Past Successes:

- M&C 2009; M&C + SNA 1997
- NURETH-7 1995; Reactor Physics 1986
- Plus multiple other symposia and meeting support



*Committed, Experienced Team!*  
*Attractive Destination!*



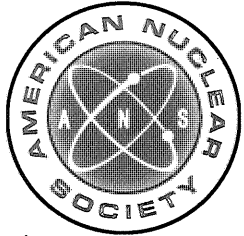
# Local Section Support



## Strong Local Support Our Best Asset!

- NENY-ANS strength comes from a large pool of local industrial and academic professionals
- NENY-ANS has a distinguished history
  - Founded in 1954
  - 2015 - Best Section Management (Small Section)
  - 2013 - Best Meetings & Programs (Small Section)
  - 2012 - Best Membership (Small Section)
- Over 20 local section members have already agreed to help!

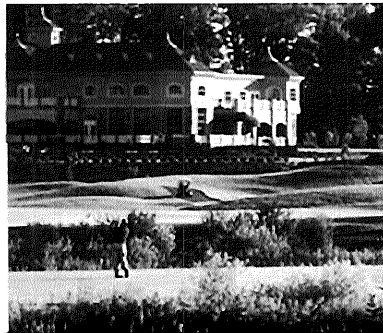




# Saratoga Springs, NY USA



- Lake George / Adirondacks
- Parks & Mineral Springs
- Shopping Downtown
- Restaurants
- Museums
- Golf



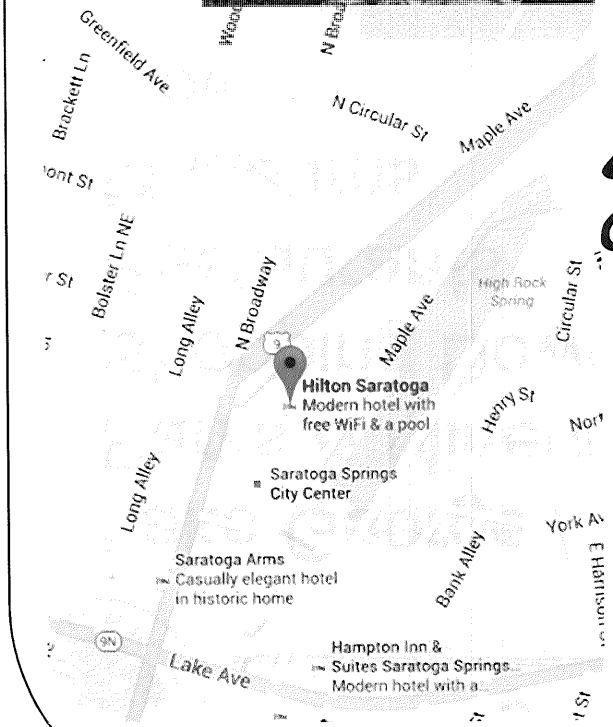
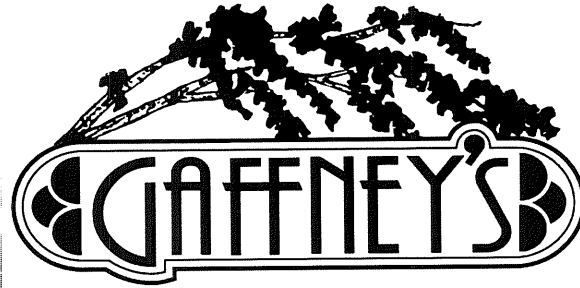
**National Museum of Racing and Hall of Fame**

Saratoga Springs, NY . 518-584-0400 . [info@racingmuseum.org](mailto:info@racingmuseum.org)



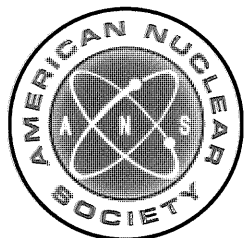


# Saratoga Springs, NY USA



CHIANTI IL RISTORANTE

**~50 Restaurants / Pubs within a few blocks of the hotel!**



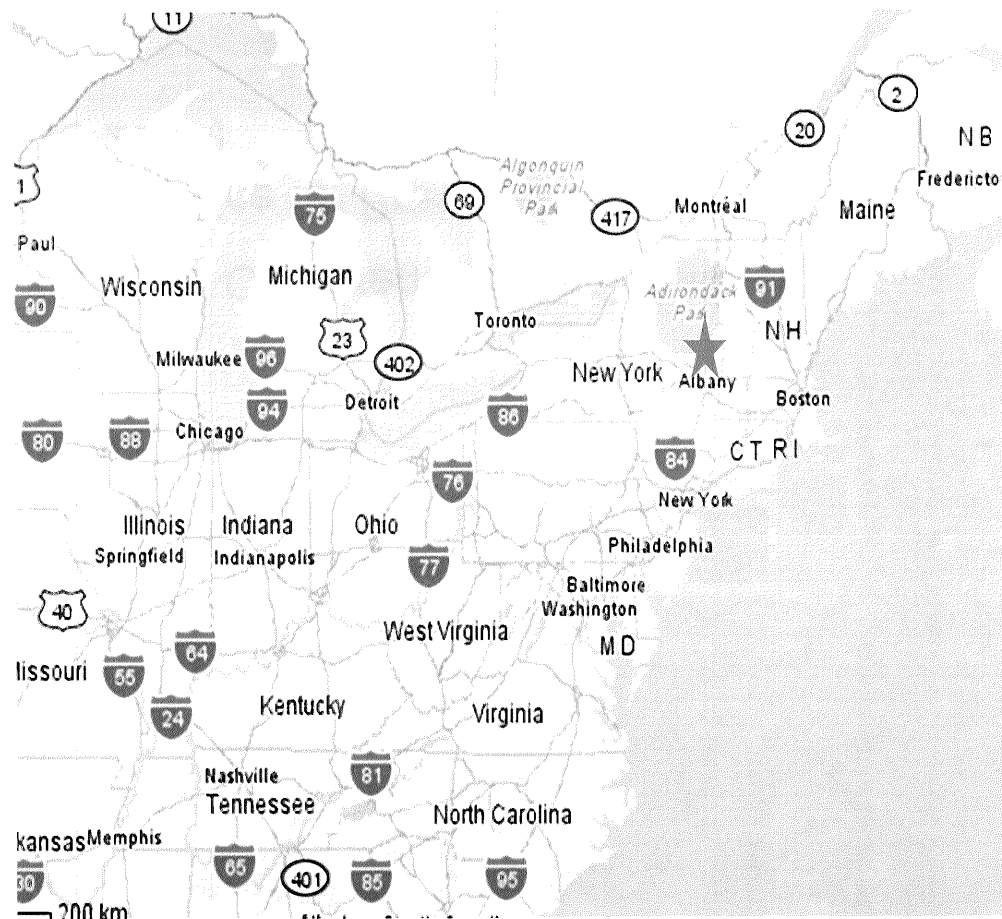
# Saratoga Springs, NY USA



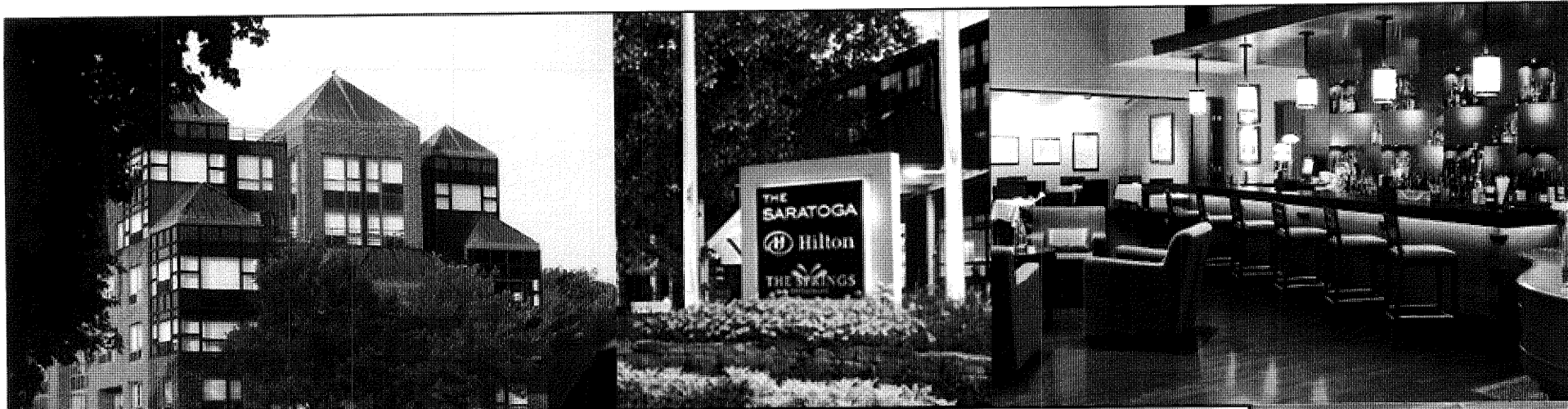
***Centrally located near Boston, Montreal, New York City, and New York State Capital***

Approximate Drive Time from Saratoga

- Albany: 30 minutes
- New York City: 3 hours
- Boston: 3 ½ hours
- Montreal: 3 hours
- Niagara Falls: 5 hours

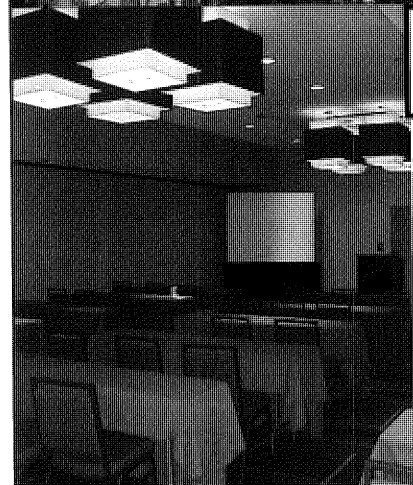


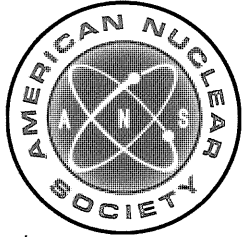




## HOTEL & MEETING FACILITIES

- Located in Downtown Saratoga
- Large Banquet Space
- Special Room Rates for Conference Participants
- Provided Excellent Service for Previous Conference (M&C 2009)





# Organizing Committee

Honorary Chairs

General Co-Chairs

Assistant General Chair

Technical Program Chairs

International Chairs

Finance Chair

Publications

Registration

Website

Student Liaison

Ray Gamino, Tom Sutton, Brian Aviles

Tim Donovan & Peter Skrabis

Hailey Green

Troy Becker, Stephanie Kempf, Aaron Watson

Imre Pazsit & Han Gyu Joo

Hiral Patel

Nathan Gibson & Bryan Herman

Nathan Gibson

Eric Amaral

RPI Student Chair



## Organizing Committee cont.



Hotel

Special Events

Guest Program & Tours

Publicity

Corporate Sponsorship

Workshops

Social Media

Brianna Coulson & Hiral Patel

David Genevich

Brianna Coulson

NENY-ANS Chair

Daniel Fromowitz

Jason Haverkamp

Hailey Green & Aaron Watson

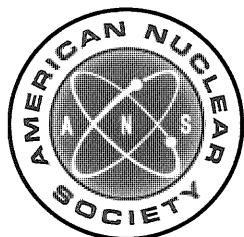


# Track Leads

Have agreed to serve if the bid is accepted



Monte Carlo	David Griesheimer
Deterministic Transport	Todd Palmer
Nuclear Data	Vlad Sobes
Reactor Physics Methods	Wei Ji
Subcritical & Accelerator Driven Systems	Imre Pazsit
Verification & Validation	Yassin Hassan
Uncertainty Quantification	Ryan McClarren
Research Reactors & Experiments	John Stevens
Reactor Design	Fausto Franteschini
Criticality Safety	Tatiana Ivanova
Multiphysics	Ben Collins
Fuel Management	Ivan Maldonado
Education & Training	Rachel Slaybaugh
Fuel Cycle	Josh Jarrell
Reactor Safety & Transient Analysis	Sandra Dulla



# Preliminary Conference Structure

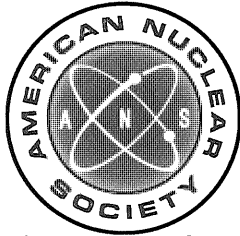
Sunday	Monday	Tuesday	Wednesday	Thursday
Coffee/Snacks	Coffee/Snacks	Coffee/Snacks	Coffee/Snacks	Coffee/Snacks
Workshops 1 & 2	Opening Plenary Session	Technical Sessions (5 Parallel Tracks)	Technical Sessions (5 Parallel Tracks)	Technical Sessions (5 Parallel Tracks)
	Morning Break	Morning Break	Morning Break	Morning Break
	Plenary Session	Technical Sessions (5 Parallel Tracks)	Technical Sessions (5 Parallel Tracks)	Technical Sessions (5 Parallel Tracks)
Lunch	Lunch	Lunch	Lunch	Lunch
Workshops 3 & 4	Technical Sessions (5 Parallel Tracks)	Technical Sessions (5 Parallel Tracks)	Technical Sessions (5 Parallel Tracks)	Closing (End of Conference)
	Afternoon Break	Afternoon Break	Afternoon Break	
	Technical Sessions (5 Parallel Tracks)	Technical Sessions (5 Parallel Tracks)	Technical Sessions (5 Parallel Tracks)	
Break	Break	Break	Break	
Welcome Reception	Poster Session I & Reception	Conference Banquet	Poster Session II & Reception	



# Preliminary Session Topics



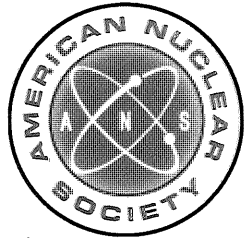
- Deterministic Transport Methods
- Monte Carlo Transport Methods
- Perturbation and Variational Methods
- Radiation Protection & Shielding
- Reactor Kinetics & Dynamics
- Criticality and Safety
- Multi-Physics
- Advanced Reactor Concepts
- Accelerators and Subcritical Systems
- Nuclear Data Methods and Analysis
- Sensitivity & Uncertainty Analysis
- Fuel Cycle Methods and Analysis
- Experimental Techniques & Analysis
- Research Reactors
- Verification & Validation
- Codes & Benchmarks



## Preliminary Special Session Topics



- Optimization Methods for Reactor Design
- Policy Implications of Advanced Fuel Cycles
- Challenges in Exascale Computing
- Verification & Validation Practices for High-Impact Software
- TREAT Topics (Experiments and Analysis)
- Multiphysics Analyses of Full-Core Reactor Problems
- Experimental Support for Emerging Reactor Designs

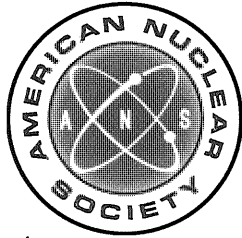


# Preliminary Workshop Options



- Workshops arranged:
  - MOOSE w/ BISON and MARMOT
  - CASL
  - Varian - Use of Attila and Attila4MC
  - Subcritical measurements (LANL)
  - Nuclear data measurements





## Special Events (proposed)



Date	Daytime / Spouse Event	Evening Event
Sunday, April 15 <sup>th</sup>	Mineral Water Tours	Welcome Reception
Monday, April 16 <sup>th</sup>	Saratoga Walking Tour / Shopping	Poster Session & Hors d'oeuvres
Tuesday, April 17 <sup>th</sup>	Automobile Museum / Museum of Dance (choose one, depending on interest)	Conference Banquet
Wednesday, April 18 <sup>th</sup>	Casino / Spa Trip	Poster Session & Hors d'oeuvres
Thursday, April 19 <sup>th</sup>	Uncommon Grounds for Coffee/Tea	N/A



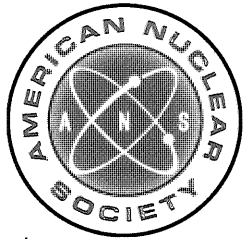


# Supporting Organizations

(the following organizations will be asked for support if the bid is successful)



- ANS
- ANS French Section
- ANS Northeastern NY Section
- ANS Reactor Physics Division
- ANS Rensselaer Student Section
- AREVA
- Argonne National Laboratory
- Atipa Technologies
- Atkins
- Bechtel Marine Propulsion Corp.
- Canadian Nuclear Society
- Candu
- Duke Energy
- Enercon
- EXCEL Services Corporation
- Exelon
- GE Hitachi Nuclear Energy
- HSW Technologies
- HukariAscendent
- Idaho National Laboratory
- IBM
- Korean Nuclear Society
- Lawrence Livermore National Laboratory
- Mitsubishi Nuclear Fuel Co., Ltd.
- National Nuclear Security Administration
- Nuclear Energy Agency
- Nuclear Engineering, Ltd.
- Société Française d'Energie Nucléaire
- Society for Industrial and Applied Mathematics
- Studsvik
- TerraPower
- Varian Medical Systems
- Westinghouse Electric Company
- *And many more....*



# Planning Schedule



## Milestone

Calendar Placement (NPC Screening)

Website Launch

First Technical Program Committee Meeting

Preliminary Publication Plan

Preliminary Meeting Approval

Call for Papers

Extended Summaries Due

Paper Review

Final Meeting Approval

Full Papers Due

PHYSOR 2018 Meeting

Close Out

Recommend Papers for NS&E Special Edition

## Date

July 2016

September 2016

November 2016

November 2016

February 2017

March 2017

September 2017

October 2017

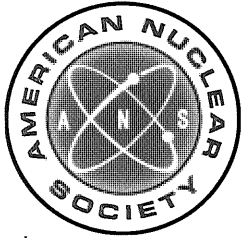
November 2017

January 2018

April 2018

June 2018

June 2018



# Make sure you...



Check out our website

[physor2018.org](http://physor2018.org)

Email us at

[physor2018@gmail.com](mailto:physor2018@gmail.com)



[facebook.com/physor2018](https://facebook.com/physor2018)



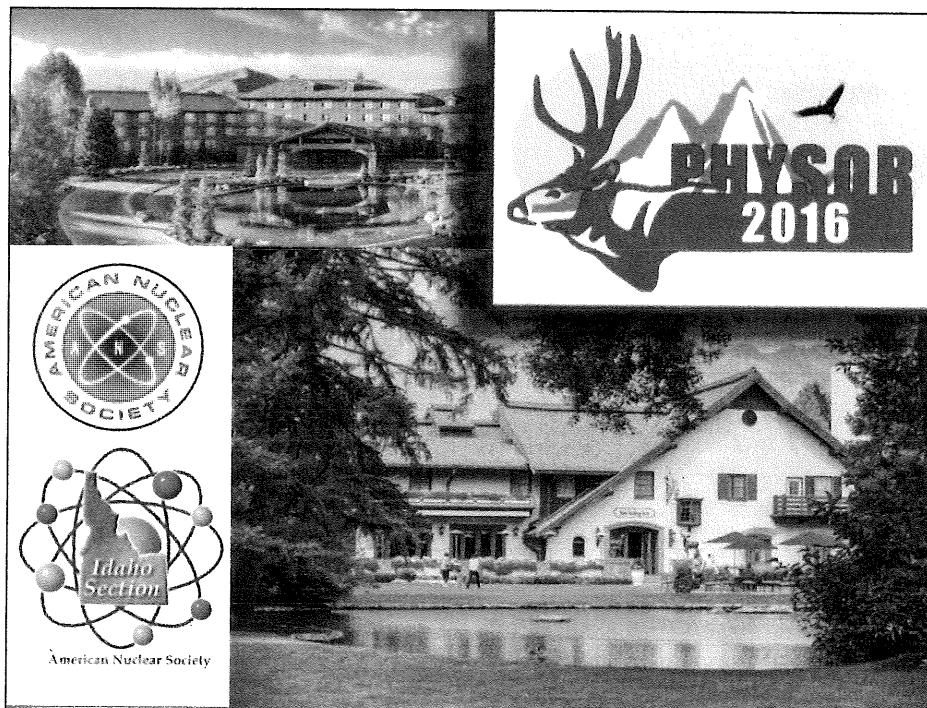
[@physor2018](https://twitter.com/physor2018)



[@physor2018](https://twitter.com/physor2018)

Download Our App (Coming soon!)





## Statistics

- **386 Technical Papers**
  - 345 Oral Presentations
  - 41 Poster Sessions
- **454 Attendees**
  - 269 US
  - 185 Internationals from 26 countries
    - France 37
    - Japan 20
    - China 17
    - United Kingdom 16
    - South Korea 15
    - Germany 13
    - Sweden 11
    - Slovenia 8
    - Switzerland 7
    - Brazil 5
    - Finland 5
    - Israel 4
    - Belgium 3
    - Czech Republic 3
    - Italy 3
    - Russian Federation 3
    - Canada 2
    - Netherlands 2
    - South Africa 2
    - Spain 2
    - United Arab Emirates 2
    - Australia 1
    - Austria 1
    - Egypt 1
    - Thailand 1
    - Turkey 1

## Statistics

### Attendees

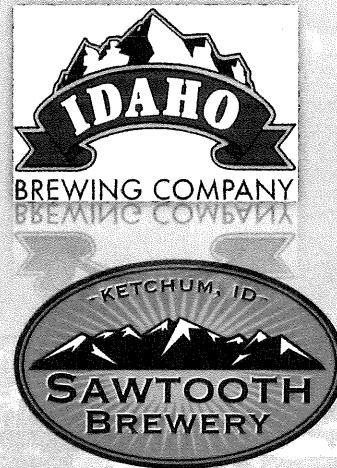
- 316 ANS Members
- 57 Student Members
- 122 Students (Reduced or no fee, supported by sponsorships!)
- 12 Exhibitors

### Sessions

- 7 parallel sessions each day
- 77 technical sessions
- 1 plenary

### Food and Drink

- Opening reception
- Lunch M-W
- Banquet
- Optional Wagon Ride/Dinner
- 9 Kegs of Idaho-brewed beer



## Sponsors

- AREVA
- Westinghouse
- TerraPower
- NuScale
- Exelon
- X-Energy
- Studsvik
- Varian
- University of Michigan
- University of California – Berkeley
- 37 Nuclear Engineering Research and Development Scientists (NERDS)
- ~ \$70,000 in total sponsorships
- M&C Eli Gelbard Scholarship Fundraiser
  - \$5000 donation from EPRI
  - \$5000 donation from Westinghouse
  - \$2500 in ticket sales
  - \$8001 in personal contributions
  - \$5300 cost for event
  - \$15,201 raised for fund
  - 50 individuals consumed food for 100 people (compared to locusts)

## Sun Valley Resort

- **The staff of the hotel were awesome to work with**
  - Responsive
  - Flexible
  - Wanted to make sure everyone was happy
  - Provided amazing rooms
  - Events were exceptionally well done.
- **Facility met PHYSOR 2016 needs, but...**
  - I think we topped out the maximum conference size for this location.
  - There are changes I would make on room arrangements for a future conference
- **However, IANS will not hesitate to host here again.**



## Best Student Papers

- **91 Student Presentations**
- **Review of papers narrowed down to top 24 candidates**
- **23 presentations were scored by reviewers (one no-show)**
- **Recognized the top three scoring papers.**
- **Tied for Second Place - \$100 and a PHYSOR coffee cup**
  - Denis Janin, Technical University of Munich: HCSMR Fuel Assembly Optimization with APOLLO2 and URANIE CODES
  - Matthew Ellis, Massachusetts Institute of Technology: Continuous Temperature Representation in Coupled OpenMC/MOOSE Simulations
- **First Place – iPad Mini, donated by SGI, and a PHYSOR coffee cup**
  - Dionysios A. Chionis, Swiss Federal Inst of Technology : On Causality Analysis of Nuclear Reactor Noise Using Partial Directed Coherence



## Finances

- “There are so many variables still out there that I really have no idea [where finances stand]. Too many bills to come in from ANS and I have no idea what the registration final numbers are given the refunds, late wire payments, advertising fees, etc.” – Bob Skinner, Treasurer
- Hotel accounts have been settled with no surprises.
- We are confident that we have made a significant profit for the meeting, but don’t know the exact numbers yet.
- Our biggest surprise was the number of students. We covered ~100 students at reduced cost and ~25 student assistants at no cost.
- National labs were unable to “sponsor” under new DOE rules. However, INL provided significant support in staff time, and INL, ANL, and ORNL sponsored exhibit booths.

## Publications

- Proceedings were provided on credit-card shaped USB – very popular with participants
- ANS did an excellent job of formatting the setup – worked well with Windows, Macintosh and Linux machines (compliments from several participants)
- Special issue on the Physics of Reactors International Conference PHYSOR 2016: Unifying Theory and Experiments in the 21st Century to be published in the Journal of Progress in Nuclear Energy.
- The special issue is expected to comprise of 24 papers.
  - Submission deadline is 15 September 2016, the date by which all papers should be submitted to the Guest Editors for review and the EES submission site will be closed.
  - Acceptance deadline is 30 May 2017, the date by which all manuscripts should be fully reviewed and final decisions made on all manuscripts; and those failed to meet the deadline may be excluded.

## Feedback

- I solicited feedback on the positives & negatives of the meeting overall. Almost all feedback was positive; none of the negatives came as a surprise. Complete list of feedback attached.

*"Great meeting. The setting was spectacular and it was organized very well. This meeting set a new high mark in the PHYSOR series of meetings." – Scott Palmtag, Core Physics, Inc.*

*"Congratulations on one of the best PHYSORs ever ... and I've gone to them all since Marseille in the 1980s ;)" – Tom Downar, University of Michigan*

*"Very good organization of the sessions that were on time and well chaired. The duration of the presentations was ideal. The weather was sunny and the organizer's tie was the most beautiful ever seen." – Jean-Pascal Hudelot, CEA, France.*

*"Highly professional meeting with state-of-the-art research topics and sessions and cutting-edge presentations. Too many parallel sessions. It would be better to cut short the number of parallel sessions and add another day/half a day. However, to sum up, the best reactor physics conference I've ever seen." – Erez Gilad, Ben-Gurion University of the Negev, Israel*

“I thought the meeting was very well organized with many good technical papers. As usual with such a large number of good papers and many concurrent tracks it was difficult to attend all the papers of interest. This is a sign of a technically very good meeting. Social events were excellent.” – Sedat Goluoglu, University of Florida

“This was indeed a positive meeting with a wide range of quality technical sessions and papers. The social organization was also great.” – Dan Kotlyar, University of Cambridge

“Great meeting. The setting was spectacular and it was organized very well. This meeting set a new high mark in the PHYSOR series of meetings.” – Scott Palmtag, Core Physics, Inc.

“Congratulations on one of the best PHYSORs ever ... and I've gone to them all since Marseille in the 1980s ;)” – Tom Downar, University of Michigan

“Very good organization of the sessions that were on time and well chaired. The duration of the presentations was ideal. The weather was sunny and the organizer's tie was the most beautiful ever seen.” – Jean-Pascal Hudelot, CEA, France.

“Huge congratulations on a very successful PHYSOR conference, I had a great time! The location chosen, the facilities and the organization were all magnificent. Some of the conference rooms proved a little small at times, but in truth this was down to the popularity of the event and of certain topics / speakers. You and your team ought to be proud of your achievements, and are probably relieved now it's over!” – James Dyrda, OECD/NEA, France

“I found the PHYSOR 2016 conference one of the most interesting and well-organised conferences in the last couple of years. The choice of venue could hardly be better. I liked the way lunches and coffee breaks were organised providing plenty of opportunities for fruitful discussions.” – Luka Snoj, Jožef Stefan Institute, Slovenia

“Highly professional meeting with state-of-the-art research topics and sessions and cutting-edge presentations. Too many parallel sessions. It would be better to cut short the number of parallel sessions and add another day/half a day. However, to sum up, the best reactor physics conference I've ever seen.” – Erez Gilad, Ben-Gurion University of the Negev, Israel

“In my opinion, it was one of the best PHYSOR I ever did attend to. Of course the quality of the papers is always high. The organization was excellent, but I wish to underline that I really felt to be in a community. You and your staff gave (at least to me) an additional quid, which I do not see usually in other conferences.” – Fabrizio Gabrielli, Karlsruhe Institute of Technology

“The Sun Valley Resort was a good venue for the event and the layout of the conference rooms allowed for a good mix of technical talks and socializing. The more laid back atmosphere was enjoyable. Some of the conference rooms were too small for the audience size and one in particular had large columns that blocked the view. The plenaries and technical presentations were interesting and informative.” – Benoit Dionne, Argonne National Laboratory

“We have been very well welcomed in Sun Valley and well implicated in the conference with the co-chairs you proposed to me. The technical tracks (covering all the “up-to-date”

fields of Reactor Physics) were very well organized including the timing of oral presentation and the atmosphere of the conference was very convenient to the discussions.” – Laurent Chabert, AREVA France

“Needless to say that the PHYSOR 2016 meeting was a success. I was very impressed with the number of participants interested in the nuclear data sessions. There was time that I saw lots of people standing up since there were no seats left.” – Luiz Leal, IRSN, France

“The meeting was very well organized. The sessions attendance was very good in my opinion; the time-schedule went well in general; the secretary was very helpful and efficient; the scientific level was good; the poster session went very well; the lunch conferences were amenable.” - Liliane Barichello, Federal University of Rio Grande do Sul, Brazil

“Excellent, very informative and well-organized meeting. My congratulations to the organizing committee.” – Ayman Hawari, NCSU

“Excellent program. The sessions with similar topics are well distributed and it is a rare case that I was struggling to choose between two talks that I both would like to attend. Nice food and lodging. I love the dinner with performance! Some meeting rooms are a little far away from others and some meeting rooms are too small and become extremely crowded for a popular talk.” – Yuxuan Liu, University of Michigan

“Congratulations on a successful conference. I thought the quality of papers was generally good. The thumb drive proceeding is excellent. The location is spectacular but the conference facilities are, let's say, imperfect. Spread too far apart and some rooms were too small and had obstructed view of the screen (pillars). The lunch and banquet hall was excellent.” – Yousry Azmy, NCSU

“The relaxing environment in an isolated resort area with good food and snacks (and drinks) provided a nice condition to concentrate on sessions and follow-up discussions. The seating arrangement on the podium for the opening plenary session was a little awkward because the plenary speakers blocked the screen.” – Han-Gyu Joo, Seoul National University, Korea

“A very well organized meeting - the conference venue was very nice and we can focus on the technical presentations as well as informal information exchange, which is one of the essential parts of an international conference. Meeting room is sometimes too small and the number of parallel sessions seems to be slightly excessive. We may start discussion on the "quality or quantity" of papers submitted to the PHYSOR meeting. Extensive discussion on the role of the meeting would be necessary in RPD. Proceeding in USB is nice.” – Akio Yamamoto, Nagoya University

“It was a great meeting, and kudos to you and the Idaho Section of ANS on your efforts. My one suggestion for improvement would be to take a bit more time to better locate talks with likely very large audiences in larger presentation spaces.” – Todd Palmer, Oregon State University

“PHYSOR was an extraordinarily well organised meeting with clear information on the status of things (paper acceptance, chairmanship, time-table) at all stages, and a very fast response from the Technical Chair to any possible questions. As far as I am concerned,

the collisions between two or more interesting talks (given at the same time) were minimal. One thing I was particularly impressed with was the ergonomics of the proceedings files, distributed on the USB memory. Finally, **all** things in the welcome package were terrific; practical, usable and original (the pizza slicer, which is something of a curiosity in Europe, was stolen by my son in zero time).” – Imre Pazsit, Chalmers University, Sweden

The quality of the technical presentations was above average. The quality of the conference organization, opportunity for networking, etc., was significantly above average. The INL tour was the best technical tour I have ever taken. – Tom Sutton, Knolls Atomic Power Laboratory



## American Nuclear Society Student Conference 2017

2017 ANS Student Conference  
Pitt ANS Student Section  
636 Benedum Hall  
3700 O'Hara Street  
Pittsburgh, PA, 15213

The ANS Student Conference provides a gathering of some of the most driven and interested students in nuclear science and technology. As a division of ANS, you represent the community and support for the development of the field. This conference provides a great opportunity to reach out to the next generation of nuclear engineers and scientists. We would like to encourage you to make the most out of this conference and reach more students interested in your track.

The best way to take advantage of the conference is by encouraging **paper submissions** among your student membership. By having students present their research and work, more interest can be generated across ANS for your division. **Sponsoring an award** for the best paper and in your technical track would provide a greater incentive for students to submit papers and draw some of the best research being done across the country. If you are interested in sponsoring an award, please let us know early so that we can advertise it well.

At the **opening dinner**, each division will have a table so that students interested in your field will be able to sit with you. Additionally, **hosting a meeting or afternoon break** can give interested students an additional opportunity to network and connect with you. We would be more than happy to work with you to make something like that happen. Please also consider being an official sponsor of the conference to take advantage of more benefits. You can find the **Sponsorship and Exhibition Package** at [www.ansstudentconference2017.com](http://www.ansstudentconference2017.com) to learn what levels of involvement are available to you.

This letter also serves as a solicitation of **judges and reviewers for paper submissions**. If any of your members are interested, please let us know at [technical.ansstudent2017@gmail.com](mailto:technical.ansstudent2017@gmail.com), but we won't start contacting those who sign up until after the winter meeting in November. For other questions, please contact us at [ansstudentconference2017@gmail.com](mailto:ansstudentconference2017@gmail.com) or at 412-330-1156.

Sincerely,

Handwritten signature of Brendan Stack in black ink.

Brendan Stack  
General Co-Chair

Handwritten signature of Miriam Rathbun in black ink.

Miriam Rathbun  
Marketing Co-Chair

Handwritten signature of Christopher D'Angelo in black ink.

Christopher D'Angelo  
Technical Director

American  
Nuclear  
Society

Sponsorship and Exhibition Package



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DISPELLING NUCLEAR MYTHS

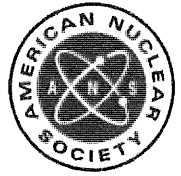
April 6-9, 2017

[ANSStudentConference2017@gmail.com](mailto:ANSStudentConference2017@gmail.com)

Student  
Conference

University of  
Pittsburgh

2017 American Nuclear Society Student Conference  
University of Pittsburgh ANS Student Section  
636 Benedum Hall  
3700 O'Hara Street  
Pittsburgh, PA, 15213



As the hosts of the 2017 American Nuclear Society Student Conference, the University of Pittsburgh ANS student section is pleased to announce that the conference will be held **Thursday, April 6th through Sunday, April 9th 2017 at the Omni William Penn Hotel in downtown Pittsburgh**, Pennsylvania. Each year, this conference marks an opportunity for both undergraduate and graduate students to network, develop their professional skills, and present their research. The roots of the weekend are firmly planted in the dissemination of information and research to others in the field. We sought to emphasize this role of students by making the theme of our conference "Dispelling Nuclear Myths."

The University of Pittsburgh and the Greater Pittsburgh area are fertile ground for nuclear research and technology. We expect **450 students and 150 professionals in attendance**. As described in this sponsorship and exhibition package, attending this conference provides many avenues through which you can **exhibit your organization** and continue making inroads with ANS students, the best of **tomorrow's nuclear workforce**.

All sponsors and exhibitors will participate in the **career fair** which is a highlight of the conference for many of our student attendees. A **six-foot table** will be provided for your recruiting materials. Sponsors will be advertised through the **program, website, and app**. Additionally, higher sponsors will have their logo on **gift bag items** and the **conference T-shirt**.

Modernizer, Pioneer, and Trailblazer sponsors will be invited to provide a **keynote speaker** at a dinner or breakfast plenary. Three dinners are held on Thursday at the hotel (opening dinner), Friday at Heinz Field (networking dinner), and Saturday at the hotel (awards ceremony). The breakfast plenaries are on Friday and Saturday morning and are meant to bring the conference body together to begin the day.

Other opportunities to address students include **lunch & learns, workshops, or panels**. A lunch & learn is an information session hosted over lunch provided by the conference. Two lunch & learns will be available concurrently on both Friday and Saturday in the largest rooms. In a workshop, you can attract students who want to develop a technical skill using your company's software for example. By naming a panel, you can put a representative from your organization on the panel to contribute to the discussion. Finally, sponsors will be invited to name **technical sessions and the poster session** where students are presenting their research, **or a social** on Thursday, Friday, or Saturday night. Any event hosted or named by your organization will display your logo on signs and advertisements.

We hope that you will find many interesting ways of partnering with Pitt ANS for the 2017 Student Conference! We very much look forward to working with you. If you have any additional questions, please reach out to us at [ANSstudentconference2017@gmail.com](mailto:ANSstudentconference2017@gmail.com), or at 412-330-115. Updated information can be found on our website: [www.ANSstudentconference2017.com](http://www.ANSstudentconference2017.com).

Sincerely,

Handwritten signature of Miriam Rathbun in black ink.

Miriam Rathbun  
Marketing Co-Chair

Handwritten signature of Brendan Stack in black ink.

Brendan Stack  
General Co-Chair



## Sponsorship Benefits

### Modernizer \$35,000+

- Provide a keynote speaker at the conference dinner or breakfast plenary of your choosing
- Name, host, or participate in a workshop, panel, and/or two technical sessions
- Hold a company-specific mock interview session
- Name the poster session
- Receive a full page ad on the inside front page or the back cover of the conference program
- Showcase logo on the conference T-shirt
- Choose two adjacent career fair booths
- Fees waived for all full-meeting registrations and career fair only registrations
- Have multiple tables at the front of the networking dinner

### Pioneer \$20,000-\$34,999

- Provide a keynote speaker at one of the three conference dinners
- Name and participate in a workshop, panel, or two technical sessions
- Receive a full page ad in the conference program
- Showcase logo on the conference T-shirt
- Choose two adjacent career fair booths
- Fees waived for five full-meeting registrations and one career fair only registration
- Have multiple tables near the front of the networking dinner

### Trailblazer \$15,000-\$19,999

- Provide a keynote speaker at one of the two breakfast plenaries
- Name and participate in a workshop, panel, or two technical sessions
- Receive a full page ad in the conference program
- Showcase logo on a gift bag item provided by the conference
- Choose a highly visible career fair booth
- Fees waived for four full-meeting registrations and one career fair only registration
- Have multiple tables at the networking dinner

### Trendsetter \$10,000-\$14,999

- Have the opportunity to host a lunch & learn
- Name and participate in a workshop, panel, or two technical sessions
- Receive a half-page ad in the conference program
- Showcase logo on a gift bag item provided by the conference
- Be invited to participate in the career fair
- Fees waived for three full-meeting registrations and one career fair only registration
- Have two tables at the networking dinner

### Groundbreaker \$7,500-\$9,999

- Have the opportunity to name two technical sessions
- Receive a half-page ad in the conference program
- Showcase logo on a gift bag item provided by the conference
- Be invited to participate in the career fair
- Fees waived for two full-meeting registrations and one career fair only registration
- Have a table at the networking dinner

**Beacon \$5,000-\$7,499**

- Have the opportunity to name a social
- Receive a quarter page ad in the conference program
- Provide a logo item for the gift bag
- Be invited to participate in the career fair
- Fees waived for one full-meeting registration and one career fair only registration
- Have a table at the networking dinner

**Guide \$2,000-\$4,999**

- Be invited to participate in the career fair
- Fees waived for one full-meeting registration and one career fair only registration
- Receive recognition in the conference program
- Have a table at the networking dinner

**Contributor < \$2,000**

- Receive recognition in the conference program

**Gift Bag Items**

- Adhesive ID Holder
- Circle Magnet
- Lanyard
- Microfiber Rag
- Notepad
- Pen
- Umbrella
- Water Bottle

**Exhibition opportunity**

Different from sponsors, exhibitors are welcome to come recruit at the conference.

**Exhibitor \$5,000**

- Be invited to participate in the career fair
- Fees waived for one full-meeting registration and one career fair only registration
- Have a table at the networking dinner

**Career-Fair booth price \$2,000**

- Includes one career fair only registration

### Opportunities by line item

This list shows minimum prices for each item. A high level sponsor may be eligible for lower tier items.

Modernizer: \$35,000	
Poster Session	Naming rights
Mock Interview Session	Hosting rights

Pioneer: \$20,000	
Thursday Opening Dinner	Keynote speaker
Friday Networking Dinner	Keynote speaker
Saturday Awards Ceremony	Keynote speaker

Trailblazer: \$15,000	
Friday Breakfast Plenary	Keynote speaker
Saturday Breakfast Plenary	Keynote speaker

Trendsetter: \$10,000	
Friday Lunch & Learn 1	Hosting rights
Friday Lunch & Learn 2	Hosting rights
Saturday Lunch & Learn 1	Hosting rights
Saturday Lunch & Learn 2	Hosting rights
Workshops:	
Complete list coming soon	Naming rights
Panels:	
Complete list coming soon	Naming rights

Groundbreaker: \$7,500	
Technical Sessions:	
Complete list coming soon	Naming rights
Adhesive ID Holder	Choose one item to display your logo
Circle Magnet	
Lanyard	
Microfiber Rag	
Notepad	
Pen	
Umbrella	
Water Bottle	

Beacon: \$5,000	
Thursday Night Social*	Naming rights
Friday Night Social*	Naming rights
Saturday Night Social*	Naming rights

\*there may be multiple socials each night, more information coming soon