

**ANS Fusion Energy Division  
Executive Committee Meeting Minutes**

Sunday, June 14, 2009, 3:00-5:00 pm EDT  
Hyatt Regency Atlanta Hotel, Baker Room  
Atlanta, GA

Attendees in person: Lance Snead (Vice-Chair), Nermin Uckan (Journal Editor), Bill Rogers, Rachel Slaybaugh (FED Liaison to ANS Board), Marty Sattison (visitor from ANST technical group).

Attendees by phone: Lee Cadwallader (Secretary/Treasurer), Brad Nelson, Alice Ying, Roger Stoller (Past Chair).

Committee members not attending: Farrokh Najmabadi (Chair), Mark Anderson, Patrick Calderoni, Art Nobile, Wayne Reiersen, Mohamad Sawan, John Sethian, Brian Wirth.

1. Lance Snead called the meeting to order at 3:05 pm. The meeting agenda is attached as Attachment 1.
2. Lee Cadwallader reported that the minutes from the September 2008 Fusion Energy Division meeting had been approved by electronic vote and were submitted to ANS HQ and to the FED webmaster on time. The minutes are posted at the FED web site. Lee also sent the new members list to the webmaster and he has updated the executive committee membership list.
3. Lee Cadwallader gave the Treasurer's Report. The report will be routed electronically for committee approval since a quorum was not convened for this executive committee meeting. The treasurer's report is attached as Attachment 2.
  - 4.1. Laila El-Guebaly, the FED Newsletter editor, was traveling and could not attend the meeting. Laila had sent an e-mail message with a briefing for the committee: she had received an article about the 23<sup>rd</sup> Symposium on Fusion Engineering from Mark Tillack and she would distribute the newsletter as soon as she had the Message from the Chair.
  - 4.2. Nermin Uckan (Journal Editor) gave the status of the *Fusion Science and Technology* journal. There were 411 manuscript files of articles submitted this year, and three camera-ready papers submitted. The 2009 issues are all filled, and they are closed to any further article additions. She is presently working on 2010 and beyond. Nermin remarked about the Joint European Torus special issue in 2008 and the planned Tore Supra special issue in 2009 would complete the series of Tokamak Special Issues. Now the Stellarators would like to produce their own special issue series. The journal is self-sustaining now. There are several reasons for this achievement. One is that the journal "impact factor" has risen from 0.1 to nearly 1, which is a very good improvement for this type of journal (note-the impact factor is a measure of the number of times a published journal article is cited in other publications over a three-year period). Another reason for the journal being self-sustaining is that manuscript submittal has increased from <100/year to over 400/year. The journal is also publishing good reference articles on

worldwide machines, and ITER relevancy is high. Nermin's report on the journal is attached as Attachment 3.

5.1. Mr. Christopher Perfetti from the University of Florida came to the FED meeting to give highlights of the 2009 ANS Student Conference. He thanked the FED for our contribution to the conference. He stated that the conference was held on April 1-5, 2009 at the University of Florida-Gainesville, and that they had 528 attendees from nuclear engineering, health physics, and medical physics. There were 139 presentations by students at the conference and 17 subject tracks. There were five fusion-related papers, and an undergraduate student, Kathleen Tom (MIT) won the best student paper in the fusion category. She plans to attend the University of Wisconsin-Madison for graduate school.

5.2. Mr. Travis Trahan (conference co-chair) and Ms. Mahima Gupta (Activities chair) from the University of Michigan came to the meeting to ask for FED support of the upcoming 2011 ANS Student Conference. This conference will be held at the Eagle Crest Conference Facility in Ann Arbor, April 8-11, 2010. The web address is [www.studentans2010.org](http://www.studentans2010.org). Their plans are to cast a wide net to bring in more students to the conference. They wish to include nuclear power, nuclear chemistry, nuclear medicine and other topics to attract more students. They have established outreach to universities in Mexico and Canada as well. The university has a plasma science laboratory (performing work for NASA and other institutions interested in plasmas) so there will be a plasma science track at the conference. The 2010 Student conference budget is on the order of \$210k (the 2009 Student conference budget was \$250k); they wish to raise \$60k in student travel assistance. They mentioned that the ANS Student Conference is very competitive, they have applied several times and each time ANS HQ requests more sprucing and honing of the conference proposal. It is quite an honor to host this conference. Mr. Trahan asked that the FED support their meeting, with finances if possible, with judges of papers, with attendance, with job fair booths, or any other way we would wish to participate. Lance Snead thanked him for speaking to our committee. The 2010 Student Conference brochure is attached as Attachment 4. The FED budget has a provision for sending a \$500 donation to the 2010 Student Conference.

6. Lance Snead asked for a status update on the 19<sup>th</sup> Topical Meeting on the Technology of Fusion Energy (TOFE). Lee Cadwallader remarked that per an e-mail message, Farrokh Najmabadi has decided to wait on presenting the paperwork on the 19<sup>th</sup> TOFE to the ANS National Program Committee until the November 2009 ANS winter meeting. Nermin Uckan suggested that the FED get word to Jake Blanchard to request a 'placeholder' for the 19<sup>th</sup> TOFE and to expect the TOFE paperwork this year.

7. Lance Snead gave the 2009 FED election results. Farrokh Najmabadi (UCSD) will become Past Chair, allowing Roger Stoller (ORNL) to retire from that position. Lance Snead (ORNL) will become Chair. Lee Cadwallader (INL) was elected to Vice-Chair. Mark Anderson (UW-Madison) was elected to Secretary/Treasurer (2 year position). The retiring committee members are Brad Nelson (ORNL), Brian Wirth (UCB), and Mark Anderson (UW-Madison). Lance thanked these members for their service to the FED.

The newly elected committee members are Lucille Dauffy (LLNL), Richard Kurtz (PNNL), and Shahram Sharafat (UCLA). The new FED executive committee list is attached as Attachment 5.

8. Lance Snead gave the awards update for Neil Morley. There have been no awards given since the 18<sup>th</sup> TOFE meeting last September. Nermin Uckan pointed out that we have two new ANS FED Fellows, Dr. Gianfranco Federici (Fusion for Energy), November 2008, and Dr. Roger Stoller (ORNL), June 2009. The committee applauds these achievements. Lee Cadwallader stated that Dr. Rene Raffray (UCSD) was given the IEEE Excellence in Fusion Technology Award at the 23<sup>rd</sup> SOFE meeting in June 2009.

9. Lee Cadwallader summarized a decision made “on-line” since the last meeting. On May 27, 2009, an e-mail vote was carried out regarding Farrokh Najmabadi’s proposal to hold the 19<sup>th</sup> TOFE as an embedded meeting in the November 2010 ANS winter meeting in Las Vegas, Nevada. Farrokh proposed that he would be General Chair and Shahram Sharafat would be Technical Program Chair. The vote was positive, with eleven ayes and two members not replying.

10.1. Lance Snead asked Lee Cadwallader to summarize the status of work toward a FED scholarship for a student. Lee described the following: ANS HQ requires a minimum amount of \$10,000 in a scholarship fund, which would be adequate to produce a \$500/year scholarship. Initiating a scholarship has a number of rules and paperwork, and a donor is needed to give a donation to initiate a scholarship fund, then the FED can match that gift. Right now, the FED treasury is doing well and can support a funding match amount of \$10,000 or more. Once a scholarship fund is started, then the division can add more funds to it each year and thereby increase the annual scholarship amount.

10.2. Marty Sattison (Vice-Chair of the Aerospace Nuclear Science and Technology technical group) addressed the executive committee. He was asking for our support in their application to ANS HQ to become a full Division rather than remain as a technical group. Marty described that the ANST has been a technical group since 2001, and they have 504 members. The ANST has been active, they have sponsored an embedded ANS topical meeting and they sponsored the Space Nuclear Systems Forum in Houston last year. They are organizing a stand-alone topical meeting in 2011. They’ve sponsored a Class IV meeting and had a track in the ICAPP. The ANST sponsors a Best Student Paper award and offers student travel assistance at levels of \$300-400 per meeting. The ANST also gets tracks in national meetings. Marty stated that their budget was lower than the FED, but that they hoped to grow it in the coming years. The ANST has dropped in membership in recent years, a nearly 7% decrease to 504 members – they believe that decline is due to funding decreases in space nuclear research. Marty asked that we please vote to accept the ANST as a Division at the Professional Divisions Committee meeting on June 16. After a brief discussion, the members agreed that the ANST has FED support; a full vote from the executive committee will be taken but members present believed that supporting their application was warranted.

Lance Snead brought up the issue of the FED web site. At one of the ANS HQ meetings he attended, the Society suggested making the division web sites more useful and informative. Suggestions were to add links to schools with fusion programs, add discussion of Division activities such as support to Student Conferences, student travel to ANS meetings. ANS mentioned a company that will provide updates to the web site, give it a uniform, professional look for \$500/year fee.

11. Lance Snead adjourned the meeting at 4:35 pm.

Attachment 1

**ANS Fusion Energy Division**  
**Executive Committee Meeting Agenda**  
Sunday, June 14, 2009, 3:00-5:00 pm EDT  
Hyatt Regency Atlanta Hotel, Baker Room  
Atlanta, GA

1. Call to Order – F. Najmabadi or designee
2. September 2008 FED Exec. Comm. meeting minutes – L. Cadwallader
3. Treasurer’s Report and Budget – L. Cadwallader
4. FED Publications:
  - 4.1 Report on FED Newsletter – L. El-Guebaly
  - 4.2 FS&T Update – N. Uckan
5. Student-related items:
  - 5.1 Report on the 2009 ANS Student Conference – M. Gidden, TAMU  
or designee
  - 5.2 Discussion on the 2010 ANS Student Conference – Student rep.
6. Update on the 19<sup>th</sup> TOFE – F. Najmabadi or designee
7. Election results for the 2009 election – R. Stoller or designee
8. FED awards update – N. Morley
9. Summary of FED decisions made “on-line” since last meeting – F. Najmabadi  
or designee
10. Other business
  - 10.1 Potential for a fusion student scholarship – F. Najmabadi or designee
  - 10.2 Miscellaneous business items – F. Najmabadi or designee
11. Adjournment

## Attachment 2

**Treasurer's Report**, Lee Cadwallader, Idaho National Laboratory, Idaho Falls, ID

In the fall of 2008 the Fusion Energy Division made three funding disbursements: a \$500 contribution to the ANS Nuclear Engineering Education for the Disadvantaged (NEED) fund, a \$500 contribution to the ANS annual student conference (which was held at the University of Florida-Gainesville in April 2009), and a \$300 contribution to ANS HQ for nuclear student travel to ANS National Meetings. Other FED expenses in the latter part of 2008 were covered by parallel fundraising activities of the conference committee for the 18<sup>th</sup> Topical Meeting on the Technology of Fusion Energy (TOFE). As of December 31, 2008, the Fusion Energy Division had a balance of \$18,021.

The FED received a member allocation of \$1,654 at the beginning of 2009. That allocation has increased from the typical \$1 to \$2 per division member. As of March 31, 2009, the Fusion Energy Division had a balance of \$19,675.00. On May 29, 2009, a disbursement was placed for a \$300 contribution to nuclear student travel to ANS national meetings; this brings the current balance to \$19,375.00. Other planned expenses for the remainder of the year include a \$500 contribution to support the upcoming 2010 ANS annual student conference, the annual \$500 contribution to the ANS NEED fund, and \$600 in telephone costs for the scheduled FED executive committee meetings. There is also a \$500 'other expenses' item in the annual budget to accommodate any unforeseen issues. These expenses sum to a total of \$2,400 for the year. Other income expected in 2009 includes an estimated revenue of \$10,000 from the 18<sup>th</sup> TOFE that was held in San Francisco at the end of September 2008. The conference revenue is expected to arrive after the TOFE is closed out in mid-2009.

Attachment 3 Fusion Science and Technology journal status report



## FUSION SCIENCE AND TECHNOLOGY

A Publication of the  
American Nuclear Society

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June 2009

To: Dimitrios Cokinos, Chair, ANS Technical Journals Committee

From: Nermin A. Uckan, Editor, *Fusion Science and Technology*

Subject: Editor's Report for the Period May 1, 2008 to April 30, 2009

The following is a summary of paper statistics and editorial activities for *Fusion Science and Technology* (FS&T).

During the period May 1, 2008 to April 30, 2009, FS&T received 411 manuscripts for FS&T regular issues, plus 43 camera-ready papers from the 2008 Open Systems Conference (OS2008) for FS&T Transactions.

Of the 411 manuscripts, 194 are from North America, 104 are from Asia, 112 are from Europe (including Russia), and 1 is from Others, with the following breakdown: 254 have been accepted/scheduled, 42 are under review/revision, and 115 have been rejected/withdrawn.

FS&T issues for 2009 are assigned and/or committed.

Following special (dedicated) issues have been published during the period 5/1/08 to 4/30/09:

- JET Tokamak (Culham, England) – FS&T May 2008
- 8<sup>th</sup> Tritium07 Proceedings (Parts 1 & 2) – FS&T Jul/Aug 2008
- ARIES Compact Stellarator Study – FS&T Oct 2008
- Selected full papers from EC-15 – FS&T Jan 2009
- Selected papers from 18th IFE Target Fabrication – FS&T Apr/May 2009

Following special (dedicated) issues are scheduled for the remainder of 2009:

- TOFE08 Proceedings (parts 1 & 2) – FS&T Jul/Aug 2009
- Tore Supra Tokamak (Cadarache, France) – FS&T Oct 2009

Following issues are confirmed for 2010:

- LHD Stellarator (JA) 10<sup>th</sup> Anniversary - FS&T regular issue
- 9<sup>th</sup> Carolus Magnus Summer School – FS&T Transactions

Following issues are being planned (or under discussion) for 2010 and beyond:

- JT-60U (update of JT-60 Special 2002) – FS&T regular issue (2010-2011)
- 19<sup>th</sup> TOFE 2010 Proceedings - FS&T (papers due 2010-2011)
- 9<sup>th</sup> Tritium 2010 Proceedings - FS&T (papers due 2011)
- JT-60SA (part of JA-EU ITER Broader Approach) – in planning
- DEMO Studies (EU, JA) – FS&T regular issue (in planning)
- IFMIF (EU, JA) – FS&T regular issue (in planning)
- KSTAR (Korea) – FS&T regular issue (in planning)
- W7-X (Germany) – FS&T regular issue (under discussion)
- Test Blankets (ITER Partners) – FS&T regular issue (under discussion)

Summary of paper statistics during this and previous periods are summarized in below tables and in attached charts.

<b>FS&amp;T Manuscripts by Regions [05/01 – thru – 04/30]</b>					
Year	Total Ms Received	North America	Asia	Europe	Others*
2008/09	411	194	104	112	1
2007/08	265	89	62	97	17*
2006/07	403	211	94	94	4
2005/06	388	129	109	147	3
2004/05	314	211	65	36	2
2003/04	250	93	52	64	41*
<i>Reference 00/01</i>	<i>63</i>	<i>29</i>	<i>23</i>	<i>8</i>	<i>3</i>

\* 2003/04 and 2007/08: some of the conference papers are included under Others – regions not sorted out in the ANS/FS&T database.

<b>FS&amp;T Manuscripts in Progress [05/01 – thru – 04/30]</b>				
Year	Total Ms Received	Accepted/ Scheduled	Rejected/ Withdrawn	Review/ Revision
2008/09	411	254	115	42
2007/08	265	179	86	0
2006/07	403	263	140	0
2005/06	388	331	57	0
2004/05	314	242	72	0
2003/04	250	197	53	0
<i>Reference 00/01</i>	<i>63</i>	<i>41</i>	<i>22</i>	<i>0</i>

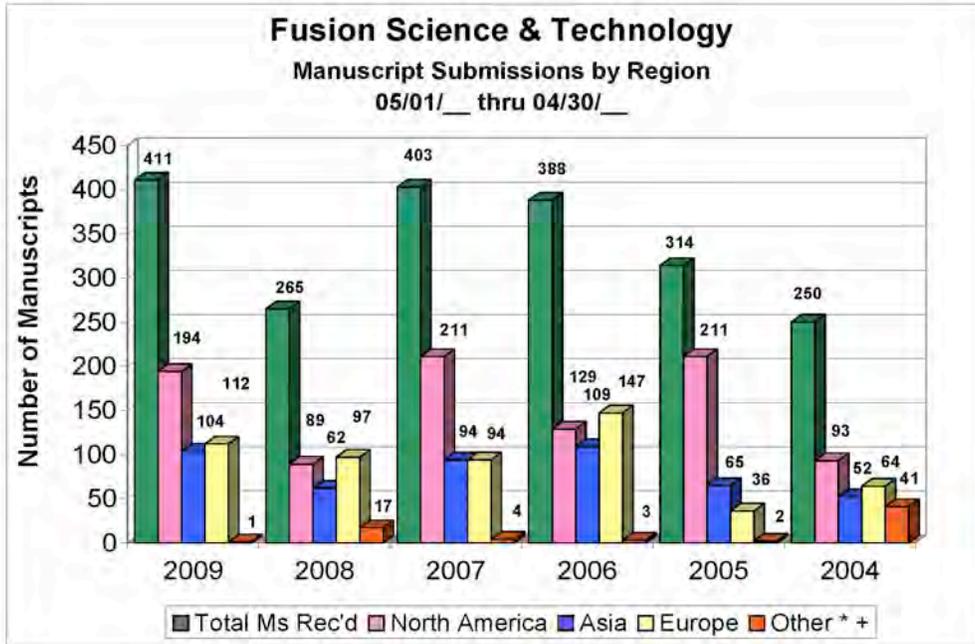
\* Papers rejected/withdrawn from pre-review/pre-selection of papers from many of the special issues are not included in paper counts and rejected/withdrawn numbers

Looking forward to seeing you in Atlanta.

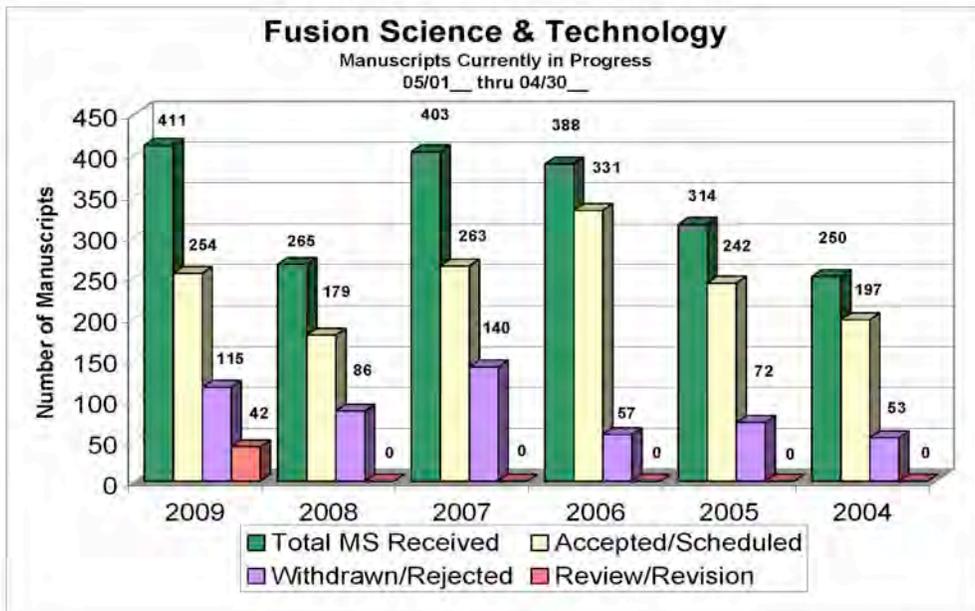
Best regards,

*Nermin A. Uckan*

Nermin A. Uckan, Editor



\* Other Includes countries from the Middle East, South America, Africa, and Australia  
 + For 2004 and 2005. Other includes rejected/withdrawn papers from TOFED2 and TRITIUM 8 - regions not sorted out



Attachment 4 2010 ANS Student Conference brochure

**The University of  
Michigan ANS  
Student Section  
Invites You to...**



**ANS Student  
Conference 2010:  
Coming Together to  
Split the Atom  
April 8<sup>th</sup>-11<sup>th</sup>, 2010**



**University of Michigan  
American Nuclear  
Society Student  
Conference 2010**



For general  
conference questions  
contact: Michaela  
Eddy (805)459-3048

For sponsorship  
questions contact  
Travis Trahan:  
(512)779-4792

or email:  
ANS2010@umich.edu

Fax: 734-763-4540

ANS Student Conference  
2355 Bonisteel Blvd.  
Ann Arbor, MI 48109

[www.studentans2010.org](http://www.studentans2010.org)

Corporate sponsorship helps make the ANS Student Conference a success year in and year out. Financial contributions will be appreciated by all attendees. Don't miss this opportunity to share your name and ideas with students around the world and hear about the latest university research.

Please let us know about your interest in sponsorship at the levels (reverse side of leaflet) or for sponsorship of particular events. Please return this slip to any University of Michigan ANS representative or mail to UM American Nuclear Society student chapter, 2355 Bonisteel Blvd. Ann Arbor, MI 48109.

Organization: \_\_\_\_\_ Intended sponsorship level: \_\_\_\_\_ Contribution: \_\_\_\_\_

Contact person name: \_\_\_\_\_ Email: \_\_\_\_\_ Phone: \_\_\_\_\_

Comments: \_\_\_\_\_



### See premier research facilities at U-M:

- Michigan Ion Beam Laboratory
- Michigan Memorial Phoenix Energy Institute & the Co-60 7.5 kCi Source
- Plasma, Pulsed Power, & Microwave Laboratory
- Radiological Health Engineering Lab
- High Temperature Corrosion Laboratory
- Irradiated Material Testing Laboratory
- Low-Temperature Plasma Laboratory
- Hercules Ultra-high Intensity Laser

### Conference Venue:

Hosted at the Marriott at Eagle Crest, a member of the International Association of Conference Centers, student attendees will get the full experience of a professional conference while also having the opportunity to explore all that the University of Michigan and Ann Arbor have to offer.



## 2010 American Nuclear Society Student Conference April 8<sup>th</sup>-11<sup>th</sup>, 2010

Every spring students, professionals, industry experts, professors and public officials come together to share perspectives and discuss the outlook of nuclear science and technology. This conference is the highest concentration of undergraduate and graduate students in nuclear science and technology in the country. The student conference is the optimal venue for students and professionals to interact both formally and casually creating connections that could shape academic and career directions.

### Conference points of interest:

- **Technical and professional development workshops** - SCALE, MCNP, Trilinos, nonproliferation, public communications
- **Technical sessions** - learn about student research conducted around the country
- **Mentoring lunch** - overseeing beautiful Ford Lake
- **Networking golf tournament**
- **Public forum** - share your nuclear expertise or learn from the experts in this first of a kind venue for discussing nuclear issues with the public
- **Career and university fair** - this is the premier location to showcase your company or university as it is the largest gathering of students in the nuclear field
- **Cook nuclear power plant tour** - visit a nuclear power plant located right on Lake Michigan and suit up in radiation protection gear
- **National Superconducting Cyclotron Laboratory tour** - visit a world leading facility in rare isotope research in the Michigan state capital
- **Social Activities** - events every evening including continuous transportation to downtown Ann Arbor
- **River Boat Cruise** - the conference will culminate in an awards banquet while cruising on the river between Michigan and Canada



### Sponsorship Opportunities

*Tritium (\$25,000+)*

- ☼ 1 Dinner speaker
- ☼ 4 free registrations
- ☼ Premier career fair booth
- ☼ Priority interview space
- ☼ 1 page ad in conference program
- ☼ Banners/Ads at all major events and technical sessions
- ☼ Advanced access to resume book
- ☼ Logo on conference program
- ☼ Linked logo on conference website
- ☼ Logo on 1 conference giveaway

*Deuterium (\$15,000+)*

- ☼ 1 lunch speaker
- ☼ 4 free registrations
- ☼ Choice career fair booth
- ☼ Priority interview space
- ☼ 1 page ad in conference program
- ☼ Limited ad space at all major events and technical sessions
- ☼ Advanced access to resume book
- ☼ Logo on conference program
- ☼ Linked logo on conference website

*Thorium (\$10,000+)*

- ☼ 3 free registrations
- ☼ Career fair booth
- ☼ ¼ page ad in conference program
- ☼ Advanced access to resume book
- ☼ Logo on conference program
- ☼ Linked logo on conference website

*Plutonium (\$5000+)*

- ☼ 2 free registrations
- ☼ Career fair booth
- ☼ ¼ page ad in conference program
- ☼ Logo on conference program
- ☼ Linked logo on conference website

*Uranium (\$2000+)*

- ☼ 2 free registrations
- ☼ Career fair booth
- ☼ 1/4 page ad in conference program
- ☼ Name in conference program
- ☼ Linked logo on website

 UNIVERSITY OF MICHIGAN

Please ask about additional sponsorship opportunities including custom ad space and sponsored conference functions.

## Attachment 5

### **FED Officers:**

Lance Snead (ORNL) Chair (09-10)  
Lee Cadwallader (INL) Vice Chair/Chair-elect (09-10)  
Mark Anderson (UW) Secretary/Treasurer (09-11)

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### **Executive Committee:**

Patrick Calderoni (INL) (07-10)  
Lucile Dauffy (LLNL) (09-12)  
Rick Kurtz (PNNL) (09-12)  
Arthur Nobile, Jr. (LANL) (08-11)  
Wayne Reiersen (ORNL) (08-11)  
Mohamed Sawan (UW) (07-10)  
John Sethian (NRL) (07-10)  
Shahram Sharafat (UCLA) (09-12)  
Alice Ying (UCLA) (08-11)

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[ying@fusion.ucla.edu](mailto:ying@fusion.ucla.edu)

### **Past Chair:**

Farrokh Najmabadi (UCSD) (09-10)

[najmabadi@fusion.ucsd.edu](mailto:najmabadi@fusion.ucsd.edu)

### **FED Standing Committee Chairs:**

Nominating: Farrokh Najmabadi (UCSD)  
Honors and Awards: Neil Morley (UCLA)  
Program Committee: Jake Blanchard (UW)

### **FED Representatives on National Committees:**

ANS Public Policy: Roger Stoller (ORNL)  
ANS Publications: position open

### **Editors:**

Newsletter: Laila El-Guebaly (UW), Dennis Bruggink (UW)  
Fusion Science and Technology Journal: Nermin Uckan (ORNL)

### **Liaisons to other organizations and ANS divisions:**

ANS Board: Rachel Slaybaugh  
MS&T: Lance Snead (ORNL)  
IEEE: George Miley (UIUC)  
RPS: Paul Wilson (UW)

### **Webmasters:**

Mark Tillack (UCSD) – FED website  
Dennis Bruggink (UW) – UW website