



**American Nuclear Society  
Fusion Energy Division  
June 2015 Newsletter**

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**Letter from the FED Chair**, Susana Reyes, Lawrence Livermore National Laboratory, Livermore, CA.

In writing my second note as FED Chair, it is my intent to provide a brief update on Division and other fusion relevant businesses over the last six months. In the first place, I am pleased to announce the following election results for our Division Executive Committee member-at-large positions for 2015-2018:

- Ahmad Ibrahim (ORNL)
- Takeo Muroga (NIFS)
- Keith Rule (PPPL)

I also take this opportunity to sincerely thank the Executive Committee outgoing members (Satoshi Konishi, Jacob Leachman and Juergen Rapp) whose term was just completed, for their valued contributions to the Division.

Secondly, I would like to give a few highlights of the national ANS meeting that just took place in San Antonio, Texas, June 7-11, 2015. It was a successful meeting under the general title of “Nuclear Technology: An Essential Part of the Solution”. Those of us with experience in the area of Fusion Technology will most likely resonate with the importance of this statement. In addition to strongly endorsing this message, I can proudly report that the FED held its own Fusion Energy session on Tuesday afternoon (June 9<sup>th</sup>), organized by our FED previous past-Chair Lee Cadwallader, where a total of four papers were presented. Also, our Division helped co-sponsor another session on Thursday morning under the topic of “Progress in Students Research and Design Projects,” organized by Blair Bromley (FED Executive Committee member). Over the San Antonio meeting, I also had the opportunity to brief the ANS Board of Directors on recent Division developments, including membership trends and financial status. I am very excited to share with you that we have finally approached the Division financial level for establishing a fully funded FED scholarship, which has been a long-standing goal of the Division since its inception in the early 1980s. While we work on the details on how to set this up with the help of ANS, I wanted to thank all active members who have helped the FED achieve this important milestone. Regarding the FED membership, we once again were able to show that we are a modest, but strong division with a steadily increasing membership, currently approaching ~1000 members. Congratulations to all for this achievement!

Regarding other meetings, the FED has recently co-sponsored the first combined Mathematics and Computations (M&C) ANS topical, with Supercomputing in Nuclear Applications (SNA) and Monte Carlo (MC) 2015. This joint international conference was held at the Sheraton Music City in Nashville, Tennessee during the week of April 19-23, 2015. Prior to 2010, SNA and MC existed as separate conferences. The joint M&C and SNA 2015 was a successful meeting with a total of 360 attendees, 250 presented papers. Later this year, our Division will support the sponsorship of ICENES 2015 (<http://icenes2015.org/>) and IFSA 2015 (<http://ifsa15.org/>), in addition to another session within the next ANS Winter meeting. All these activities are essential to maintain and increase our Division’s good health and vitality.

In connection with this last point, it is one of my main goals during my term as a Chair to continue to strive to increase the participation of Division members in FED activities. Whether you are a former or a new member, please do not hesitate to contact me if you would like to pursue further involvement in the FED or the broader Society.

Lastly, I need to share with you some rather personal news that will have an impact in the FED leadership over the next few months. I expect to be on maternity leave from professional activities starting at the end of June till December. During this period, our Division Vice-Chair, Arnie Lumsdaine, will serve as acting FED Chair for all matters.

I look forward to rejoining you all at the end of this year, and thank you all for your continuous support for the ANS FED.

**New ANS Fusion Fellows – June 2015**, Nermin A. Uckan, FS&T Editor, Oak Ridge National Laboratory, Oak Ridge, TN.

The election to the rank of Fellow within the ANS recognizes the contributions that individuals have made to the advancement of nuclear science and technology through the years. Selection comes as a result of nomination by peers, careful review by the Honors and Awards Committee, and election by the Society's Board of Directors. The list of current ANS fellows, nomination steps, guidelines, and nomination forms can be found at <http://www.ans.org/honors/va-fellow>. The list of active ANS-FED fellows can be found at <http://fed.ans.org/fellows.shtml>.

It is a pleasure to report that we have a new ANS Fusion Fellow added to the honors rank in June 2015: Dr. Yutai Katoh. Congratulations for a well-deserved honor.

Yutai Katoh, ANS member for 7 years, was recognized as a Fellow of the American Nuclear Society during the ANS Annual Meeting, held in San Antonio, Texas, June 8-11, 2015. Yutai Katoh is Distinguished R&D Staff at Oak Ridge National Laboratory, serving as senior program manager and principal investigator for various DOE and other sponsored research and development programs in nuclear and fusion material areas.

Dr. Katoh earned the highest grade of ANS membership “*For his pioneering research on microstructural mechanisms of radiation damage in advanced materials for nuclear fission and fusion applications with particular impact on the development of ceramics and ceramic composites.*”

Dr. Katoh is also a Fellow of American Ceramic Society (2013) and a recipient of Fusion Power Associate Board of Directors' Excellence in Fusion Engineering Award (2006).

FED has about three dozen or so active Fellow members and the FED Officers/Executive Committee have been encouraging all FED members to actively engage in nominating deserving colleagues to the fellowship grade. During the past couple of years, FED

members have been working diligently to add one-to-two well-deserving colleagues a year to the FED Fellows roster. We need to continue this positive trend and keep nominating our colleagues. Please remember that one cannot get recognized and elevated to Fellow status, unless nominated. The FED “red-team” Fellows will be happy to provide guidance and help review nomination packages. Feel free to contact [uckanna@ornl.gov](mailto:uckanna@ornl.gov) for questions.

**List of Officers and Executive Committee Members**, Minami Yoda, Georgia Institute of Technology, Atlanta, GA.

We are pleased to welcome the new FED Executive Committee Officers and members.

In June 2014, Susana Reyes (LLNL) began her two-year term as Chair, Arnold Lumsdaine (ORNL) began his two-year term as the Vice-Chair/Chair-Elect, and Paul Humrickhouse began his two-year term as Secretary/Treasurer.

We would like to welcome the three newly elected members of the FED Executive Committee, based on the results from the election held in spring 2015: Dr. Ahmad Ibrahim (ORNL), Dr. Takeo Muroga (NIFS) and Dr. Keith Rule (PPPL). And we thank the outgoing committee members Dr. Satoshi Konishi (Kyoto U.), Dr. Jacob Leachman (Washington State), and Dr. Jürgen Rapp (ORNL) for their service.

**FED Officers:**

Susana Reyes (LLNL) Chair (14-16)  
Arnold Lumsdaine (ORNL) Vice Chair/Chair-elect (14-16)  
Paul Humrickhouse (INL) Secretary/Treasurer (14-16)

**Executive Committee:**

Jean Paul Allain (UIUC) (13-16)  
Blair Bromley (AECL) (14-17)  
Ahmad Ibrahim (ORNL) (15-18)  
Kevin Kramer (LLNL) (13-16)  
Takeo Muroga (NIFS) (15-18)  
Keith Rule (PPPL) (15-18)  
Craig Taylor (LANL) (14-17)  
Neill Taylor (CCFE) (14-17)  
Kelsey Tresemer (PPPL) (13-16)

**Past Chair:**

Minami Yoda (GIT) (14-16)

**FED Standing Committee Chairs:**

Nominating: Minami Yoda (GIT) – Chair  
Honors and Awards: Nermin Uckan (ORNL) – Chair  
Program Committee: Arnold Lumsdaine (ORNL) – Chair

**FED Representatives on National Committees:**

ANS Publications: Nermin Uckan (ORNL)

ANS Public Policy: Susana Reyes (LLNL)

ANS Program Committee: Arnold Lumsdaine (ORNL)

**Editors:**

Newsletter: Laila El-Guebaly (UW)

Fusion Science and Technology Journal: Nermin Uckan (ORNL)

**Fusion Award Recipients**, Laila El-Guebaly, Fusion Technology Institute, University of Wisconsin-Madison, Madison, WI.

Fusion awards have been established to formally recognize outstanding contributions to fusion development made by members of the fusion community. The following awards (listed in alphabetical order) were available to the newsletter editor at the time of publishing this newsletter. We encourage all members of the fusion community to submit information on future honorees to the editor ([elguebaly@engr.wisc.edu](mailto:elguebaly@engr.wisc.edu)) to be included in future issues. The ANS-FED officers and executive committee members congratulate the honored recipients of the 2014 and 2015 fusion awards on this well-deserved recognition and our kudos to all of them.

**ANS Awards**

- **ROCKWELL LIFETIME ACHIEVEMENT AWARD** has been presented to **Donald J. Dudziak** (LANL) for his dedication over five decades to outstanding research, development, education, and mentoring in the area of radiation shielding and protection and for his continued work in the field as a LANL emeritus fellow and a journal editor.
- **YOUNG MEMBER EXCELLENCE AWARD** was presented to **Rachel N. Slaybaugh** of the University of California at Berkeley for demonstrating exemplary leadership and advancing the field of nuclear engineering through significant contributions in computational neutronics methods, education, and professional service.

**DOE Award**

**Brian D. Wirth** (University of Tennessee) has been named to receive the **DOE Ernest Orlando Lawrence Award**. The citation states: **Wirth's** research and specialization on computational modeling transformed scientific understanding of fuel performance validation, radiation effects in materials and evaluating lifespans of current nuclear reactors. **Wirth** describes his research as an intersection of nuclear energy, materials science and high performance computers, noting his participation in an ongoing project under SciDAC that uses the Titan supercomputer as an attempt to produce sustainable fusion for electricity.

## EPS Award

The European Physical Society (EPS) has named Princeton University physicist **Nat Fisch** winner of the **2015 Hannes Alfvén Prize**, awarded for outstanding contributions to plasma physics. **Fisch** received the prize for fundamental studies of wave-particle interactions and for predicting new plasma phenomena, including new ways of creating electrical currents using radio-frequency waves.

**News from Fusion Science and Technology (FS&T) Journal**, Nermin A. Uckan, FS&T Editor, Oak Ridge National Laboratory, Oak Ridge, TN.

During the past 12 months (from May 1, 2014 to April 30, 2015), FS&T received a total of 348 manuscripts. Of the 348 manuscripts, 93 were from North America, 81 from Europe (including Russia), 158 from Asia, and 16 from other countries.

The following dedicated issues were published during the period 5/1/14 to 4/30/15:

- Selected papers from ICFRM-16 2013 – Jul. & Aug. 2014
- ARIES-ACT Power Plant Study – Jan. 2015
- Selected papers from Tritium2013 (camera-ready) – Mar. & Apr. 2015.

The following issues are scheduled for the remainder of 2015:

- Selected papers from OS2014 – Jul. 2015
- Selected papers from TOFE2014 – Sep. & Oct. 2015.

The following issues are being scheduled/planned for 2016 and beyond:

- NIF-NIC Special Issue – Jan 2016 [scheduled]
- Target Fabrication 2015 special issue – (mid 2016)
- 1st IAEA-TM on Fusion Data Processing, Validation, Analysis – (late 2016)
- Selected papers from Tritium2016 – (2017)
- Selected papers from TOFE2016 – (2017).

**New with FS&T in 2015:** ANS did start ‘First-Look’ article-based publishing in 2015.

Summary of paper statistics during this and previous periods are summarized in the table.

<b>FS&amp;T Manuscripts by Regions [05/01 – thru – 04/30]</b>					
Year	Total Ms Received	North America	Europe	Asia	Others
2014/15	348	93	81	158	16
2013/14	242	39	64	132	7
2012/13	262	112	56	88	6
2011/12	247	33	89	116	9
2010/11	387	120	110	152	5
<i>Reference 00/01</i>	<i>63</i>	<i>29</i>	<i>8</i>	<i>23</i>	<i>3</i>
<i>* Papers rejected/withdrawn from pre-review/pre-selection from many of the conferences and special issues are not included in paper counts and regional breakdowns in the ANS/FS&amp;T database.</i>					

Electronic access to FS&T is available from 1981-to-current. Tables of contents and abstracts of papers can be accessed at <http://www.ans.org/pubs/journals/fst/>. Individual and library subscribers can access the full text articles at <http://epubs.ans.org/>.

Please send your comments on FS&T contents and coverage as well as suggestions for potential future topical areas that are timely and of interest to [fst@ans.org](mailto:fst@ans.org).

## **ONGOING FUSION RESEARCH**

### **DOE Technical Workshops Identified and Addressed Fusion Challenges,** C. Greenfield, General Atomics, San Diego, CA.

On February 9, 2015, Ed Synakowski (Department of Energy Associate Director of Science for Fusion Energy Sciences) announced a series of technical workshops to seek community engagement and input for future program planning activities. These workshops are a follow-on to last year's FESAC Strategic Planning Panel, and will be patterned after the 2009 Research Needs Workshop (ReNeW). The four workshops are as follows:

<b>Workshop(s)</b>	<b>Chair / Co-Chair</b>	<b>Federal POC</b>
Integrated Simulations for Magnetic Fusion Energy Sciences	Paul Bonoli(MIT) / Lois Curfman McInnes (ANL)	John Mandrekas (FES),Randall Laviolette (ASCR)
Plasma-Materials Interactions	Rajesh Maingi (PPPL) / Steve Zinkie (U Tennessee)	Peter Pappano (FES)
Transients	Chuck Greenfield (GA) / Raffi Nazikian (PPPL)	Mark Foster (FES)
Plasma Science Frontiers	Fred Skiff (U Iowa) / Jonathan Wurtele (UC Berkeley)	Sean Finnegan (FES)

The objectives of the workshops include elements from among the following:

1. Review recent progress and update about new developments since the last time organized community input was obtained,
2. Identify the gaps and challenges along with specific parameters that would need to be achieved for addressing such gaps
3. Discuss near- and long-term research tasks, such as experiments that could be performed on existing facilities
4. Describe upgrades to existing facilities and diagnostic capabilities that could enable or enhance the research tasks
5. Identify linkages to associated research areas
6. Describe potential new activities for addressing the gaps and challenges
7. Identify areas for which modeling and simulation could be impactful.

Specific information about the four workshops is provided below:

### **Plasma-Materials Interactions (PMI) – May 4 - 6 at PPPL in Princeton, NJ.**

This community workshop identified the leading challenges in plasma-materials interactions (PMI) and options to address those challenges. The chair and co-chair for the PMI evaluation are Rajesh Maingi (PPPL, [rmaingi@pppl.gov](mailto:rmaingi@pppl.gov)) and Steve Zinkle (Univ. Tennessee, [szinkle@utk.edu](mailto:szinkle@utk.edu)). To fulfill the goals, the community re-evaluated the thrusts developed in the 2009 Research Needs for Magnetic Fusion Energy Sciences Workshop (ReNeW) report. Specifically, this includes Thrusts #9 (SOL/divertor physics), #10 (plasma-surface interactions), #11 (engineering science innovations), #12 (core-edge integration), and #14 (fusion materials; narrowed to materials for plasma-facing components, including potential synergistic effects of fusion neutron damage). A sub-panel has evaluated each Thrust, with a leader and deputy, and a number of sub-panel members. Community input was accepted via talks given at the workshop and two-page white papers. The panels also examined the longer white papers submitted to the FESAC Strategic Priorities panel in 2014. Eighty participants from institutions all over the country participated in the May 4-6 workshop at PPPL. More information, is available at <https://www.burningplasma.org/activities/?article=Plasma-Materials%20Interactions>.

### **Integrated Simulations for Magnetic Fusion Energy Sciences – June 2 - 4 in Washington, D.C.**

The offices of Fusion Energy Sciences and Advanced Scientific Computing Research jointly sponsored a Workshop on Integrated Simulations for Magnetic Fusion Sciences. The workshop chair is Paul Bonoli (MIT, [bonoli@psfc.mit.edu](mailto:bonoli@psfc.mit.edu)) and the co-chair is Lois Curfman McInnes (ANL, [curfman@mcs.anl.gov](mailto:curfman@mcs.anl.gov)). The goals of this workshop are to review recent progress and identify gaps and challenges in fusion theory and computation directly relevant to the areas of disruption prevention, avoidance, and mitigation, and the area of plasma boundary physics, with whole device modeling as the long-term goal. In addition, the workshop reassessed these opportunities and adjusted or broadened them appropriately, taking into consideration recent progress and using the criteria of urgency, extreme-scale computing benefit, readiness for progress within a ten-year time frame, and world-leading potential. The workshop is organized into panels that cover disruption physics, boundary / scrape-off-layer / plasma-material-interaction physics, and whole device modeling, with cross-cutting panels on multi-physics and multi-scale coupling, challenges for moving beyond interpretive simulations, data analysis and management issues, and software integration and performance. Community wide input was obtained through a two-page whitepaper solicitation and a Community Input Teleconference that was held on May 18-19, 2015. Additional information on whitepapers and the teleconference can be found at the workshop website: <https://www.burningplasma.org/activities/IntegratedSimulations2015>.

Panel members convened to discuss, revise, and produce a draft report during the workshop.

### **Transients – June 8 - 10 at General Atomics in San Diego, CA.**

The community workshop on Transients will work to identify the leading challenges to preventing device damage arising from ELMs and disruptions in future tokamaks. This workshop, led by Chuck Greenfield (GA, [greenfield@fusion.gat.com](mailto:greenfield@fusion.gat.com)) and Raffi Nazikian (PPPL, [rnazikian@pppl.gov](mailto:rnazikian@pppl.gov)) is organized in two panels and six subpanels. The goal of



the workshop will be to identify scientific questions in each of the sub-panel areas and propose research to address these questions. In each case, we will consider both the needs and time-line of ITER and the longer-term needs of future devices. Opportunities for input to the panels will be closely modeled after the 2009 ReNeW process. Input can be given in the form of two-page white papers and short presentations to be given during a virtual workshop (via video) the week of March 30. The panels will also consider the 2009 ReNeW Thrust 2 and the white papers submitted to the 2014 FESAC Strategic Planning Panel.

### **Plasma Science Frontiers**

This panel will address the state-of-the-art of plasma science; the opportunities for progress that exist at the present time and the platforms available to advance the science. Input is being sought from all sub-fields through white papers and a town hall meeting (June 30 - July 1), and will be brought together in two workshops. The first workshop (August) will identify compelling scientific challenges at the frontiers of plasma physics, and a second workshop (October) will identify research tools and capabilities to address these challenges in the next decade. The workshop chair is Frederick Skiff (U Iowa, [frederick-skiff@uiowa.edu](mailto:frederick-skiff@uiowa.edu)) and the co-chair is Jonathan Wurtele (UC Berkeley, [wurtele@berkeley.edu](mailto:wurtele@berkeley.edu)). The white-paper solicitation and all other necessary information are available at: <http://www.ornl.gov/plasmawkshps2015>. Because of the broad scope of the Plasma Science Frontiers panel, the timeline is different from the other three workshops where a final report on the community input and conclusions will be submitted to the Department of Energy by June 30, 2015.

The US Burning Plasma Organization will provide communications services to activities of all four workshops at:

[https://www.burningplasma.org/activities/?article=FES Community Planning Workshops 2015](https://www.burningplasma.org/activities/?article=FES%20Community%20Planning%20Workshops%202015).

**FESAC Panel on FES Non-Fusion Applications**, R. Callis, General Atomics, San Diego, CA.

In response to a request from the U.S. Congress, the Fusion Energy Sciences Advisory Committee (FESAC) has appointed a subcommittee to prepare a report on “the contributions of fusion energy sciences (FES) to scientific discovery and the development and deployment of new technologies beyond possible applications in fusion energy.”

The FESAC subcommittee on non-fusion applications (FESAC NFA) has generated a survey to obtain information from the fusion community of what non-fusion work has resulted from their DOE-funded fusion research. We encourage forwarding the link to this survey ASAP to all colleagues working in related areas: <http://goo.gl/forms/bFhorCRm9V>. **Submissions will be accepted until June 19, 2015.**

In order to be comprehensive in listing all relevant activities in the report, we request your input through this survey. We ask that you make one or more entries describing

recent developments connected to the activities of the DOE Office of Fusion Energy Sciences, described in detail at <http://science.energy.gov/fes/>.

Subcommittee members: Amy Wendt (UW-Madison), Richard Callis (General Atomics), Philip Efthimion (Princeton Plasma Physics Lab), John Foster (University of Michigan), Chris Keane (Washington State University), Terry Onsager (NOAA) and Patrick O'Shea (University of Maryland).

## **INTERNATIONAL ACTIVITIES**

**US ITER Report**, Ned Sauthoff, US ITER Project Office, Oak Ridge National Laboratory, Oak Ridge, TN.

The ITER Council met in Extraordinary Session on March 5 to decide on the appointment of the next Director General (DG). Bernard Bigot, formerly the long-time head of the French CEA, presented his action plan for addressing ITER's issues and received unanimous agreement on his plan from the Council; he was then appointed the next Director General starting immediately. Dr. Bigot's action plan addressed a wide range of issues and barriers, including those identified in the 2013 Management Assessment. The plan established the Director General as the leader of the international project (not just the ITER Organization's Central Team), established an Executive Project Board consisting of the DG, two Deputy Directors General, and the seven Heads of the Domestic Agencies (the entities established to execute the projects in each Member) to enable integrated decision-making throughout the international project, modified the ITER Organization structure to match the construction and operations scope, and established a Reserve Fund to enable rapid DG decision on technical changes in the best interest of the project, among other actions. Dr. Bigot immediately started the new management approach with a meeting of the Executive Project Board on the same day as the Council meeting that appointed him. Since that time, several long-standing technical issues have been resolved, enabling progress on the development of a long-range schedule that reflects technical realities. Large-size deliveries for the ITER plant that require the special ITER Itinerary and transport vehicles have begun arriving: four 87-tonne 400-kV transformers from the United States, detritiation tanks from the European Union, and two 61,000-gallon nuclear-qualified tanks from the US. The highest priorities for the integrated international team are resolution of outstanding technical issues and development of a reliable long-range resource-loaded schedule to be presented to the Council in November, to enable informed governmental and inter-governmental deliberations about the project.

For further information about the international project, please visit the ITER website [www.iter.org](http://www.iter.org) and its newsletter (<http://www.iter.org/whatsnew>). For information on the US project, see [www.usiter.org](http://www.usiter.org).

## FUSION CONFERENCES

**ICENES-2015 Call for Papers**, Sümer Şahin, ATILIM University, Ankara, Turkey.



Dear Colleagues and Friends,

It is my pleasure to invite you to attend the 17<sup>th</sup> International Conference on Emerging Nuclear Energy Systems (ICENES2015), which will take place in 04-08 October 2015 inclusive, in Antalya, Türkiye.

This conference will consist of an informative and comprehensive scientific program, featuring oral and poster presentations and a commercial exhibition. This will provide a unique opportunity to become familiar with the most recent advancements in innovative nuclear energy systems, as well as looking at "bold" and "unthinkable" ideas on a sound scientific-technical basis. The forum will also be open to intellectual debate leading to practical applications around innovative non-nuclear technologies, such as hydrogen energy, solar energy, deep space exploration and others.

Earlier conferences were held in Graz (Austria), Lausanne (Switzerland), Helsinki (Finland), Madrid (Spain), Karlsruhe (Germany), Monterey (USA), Chiba (Japan), Obninsk (Russia), Tel-Aviv (Israel), Petten (The Netherlands), Albuquerque (USA), Brussels (Belgium) and Istanbul (Türkiye), Ericeira (Portugal), San Francisco (U. S. A.), Madrid (Spain). It has been the tradition of the ICENES conference series to select conference venues with unique features. For 2015, one of the most beautiful and most attractive touristic regions of Türkiye will host ICENES2015, where sea and mountains embrace each other.

We feel sure that you will enjoy the meeting facilities at the congress venue. You will enjoy our assistance to ensure your stay with us is fascinating, rewarding and memorable. I am confident you will all be delighted with your stay in Antalya where you will have the opportunity to experience the renowned Turkish hospitality.

The conference web address is: <http://www.icenes2015.org>

A selection of ICENES2015 papers will be published in special editions of "International Journal of Hydrogen Energy"

<http://www.sciencedirect.com/science/journal/03603199>

"International Journal of Energy Research"

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-114X>

"International Journal of Fusion Energy"

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/10894>

#### CONFERENCE TOPICS

- Advanced Fission Systems
- Fusion energy systems
- Advanced Neutron Sources and Accelerator Driven Systems
- Exotic Nuclear Reactor Concepts
- Improved Technical Performance
- Transmutation and Fuel Cycle
- Generation IV Reactors
- Thorium Reactors
- Safety and Environment
- Operations and Economics
- Co-Generation and Non Electricity Production Applications
- Space Power and Propulsion
- Deep Space Exploration, General
- Nuclear Hydrogen Production
- Radiation Protection & Shielding
- Hydrogen Energy General, Including Non-Nuclear Applications
- Solar Energy and other Alternative Energies
- Sustainability and Renewability
- Long Range Energy Planning
- Knowledge, Management and Human Resources
- Social Issues

#### Host organizations

ATILIM University  
GAZI University

#### Honorary Chairman

Prof. Dr. Sümer ŞAHİN

#### Conference Chairman

Prof. Dr. Hacı Mehmet ŞAHİN

#### General Chairman

Prof. Dr. José M. MARTINEZ-VAL

#### HONORARY COMMITTEE

Prof. Dr. Carlo RUBBIA  
Prof. Dr. T. Nejat VEZİROĞLU  
Prof. Dr. Süleyman BÜYÜKBERBER  
Prof. Dr. Abdurrahim ÖZGENOĞLU

#### Standing Committee

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Jacques LIGOU; Rainer SALOMAA  
Guillermo VELARDE; Günter KESSLER  
Ralph MOIR; Hideshi YASUDA  
Anatoloy ZRODNIKOV; Louis TEPPER  
A. H. VERKOOIJEN; Tom MEHLHORN  
Hamid Ait ABDERRAHIM; Sümer ŞAHİN  
Pedro VAZ; Wayne MEIER  
Emilio Minguez TORRES

#### Scientific Committee

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İbrahim Dinçer Yican Wu  
Laila El-Guebaly J. Jiang  
C. Liu Werner Maschek  
Goon-Cherl Park Tariq Jamal  
Yinping Zhang Xue-Nong Chen  
Mohamed S. El-Genk Zaki Suud  
Jose Manuel Perlado Rainer Salomaa  
Abdul Waris Kazuo Tanaka  
Waclaw Gudowski Minyou Ye  
Susana Reyes Mohamed Sawan  
Georges Van Goethem Andrey Gulevich  
Hongli Chen Maosheng Li  
Antonio Lafuente Farhang Sefidvash  
V. Jagannathan

## **RECENTLY PUBLISHED FUSION BOOKS**

**Louis Bobin, Controlled Thermonuclear Fusion**

[http://www.worldscientific.com/doi/abs/10.1142/9789814579766\\_fmatter](http://www.worldscientific.com/doi/abs/10.1142/9789814579766_fmatter)

**Laila A. El-Guebaly, Lorenzo V. Boccaccini, Richard J. Kurtz, and Lester M. Waganer, “Technology-related challenges facing Fusion power plants,”** Chapter in book: Fusion Energy and Power: Applications, Technologies and Challenges.

[https://www.novapublishers.com/catalog/product\\_info.php?products\\_id=54439&osCsid=3313b6069d6af6e75338c344520d139b](https://www.novapublishers.com/catalog/product_info.php?products_id=54439&osCsid=3313b6069d6af6e75338c344520d139b)

## **CALENDAR OF UPCOMING CONFERENCES ON FUSION TECHNOLOGY**

### **2015:**

12<sup>th</sup> International Symposium on Fusion Nuclear Technology - ISFNT

September 14 – 18, 2015, Jeju Island, S. Korea

<http://www.isfnt-12.org/sub01>

9<sup>th</sup> Inertial Fusion Sciences and Applications (IFSA-2015)

September 20 – 25, 2015, Seattle, WA

<http://ifsa15.org/>

17<sup>th</sup> International Conference on Emerging Nuclear Energy Systems (ICENES-2015)

October 4 – 8, 2015, Antalya, Turkey

<http://www.icenes2015.org>

17<sup>th</sup> International Conference on Fusion Reactor Materials – ICFRM-17

October 11 – 16, 2015, Aachen, Germany

[http://www.fz-juelich.de/conferences/ICFRM2015/EN/Home/home\\_node.html](http://www.fz-juelich.de/conferences/ICFRM2015/EN/Home/home_node.html)

ANS Winter Meeting

November 8 – 12, 2015, Washington, DC, USA

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

57<sup>th</sup> American Physical Society - Division of Plasma Physics (APS-DPP) meeting

November 16-20, 2015, Savannah, GA, USA

<http://www.apsdpp.org>

### **2016:**

ANS Annual Meeting

June 12-16, 2016, New Orleans, LA, USA

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

11<sup>th</sup> International Conference on Tritium Science and Technology – Tritium-2016  
April 17-22, 2016, Charleston, S. Carolina, USA  
<http://tritium2016.org>

ANS 22<sup>nd</sup> Topical Meeting on the Technology of Fusion Energy – TOFE-2016  
August 22-25, 2016, Philadelphia, PA, USA  
<http://www.ans.org/>

29<sup>th</sup> Symposium on Fusion Technology – SOFT-2016  
September 5-9, 2016, Prague, Czech Republic  
<http://www.SOFT2016.EU>

ANS Winter Meeting  
November 6-10, 2016, Las Vegas, NV, USA  
<http://www.ans.org/>

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