

Public Information about the 2014 FESAC Strategic Planning (SP) Panel:
Presentation Guidance (*Revised 17 May 2014*)

<https://www.burningplasma.org/activities/?article=2014%20FESAC%20Strategic%20Planning%20Panel>

The FESAC Strategic Planning (SP) Panel invites all members of the fusion-research and plasma-science communities to submit a white paper expressing a particular scientific topic's status and priorities, as updated from the *2007 Greenwald's FESAC panel report on Priorities, Gaps, and Opportunities*, and a separate white paper expressing that topic's associated initiatives, i.e., new and exciting topic sub-elements of a given program element. Format guidance is provided in the companion document "Public information about the 2014 FESAC Strategic Planning (SP) Panel: White-Paper Guidance".

Each white-paper author, or author-delegate, is invited to submit a **brief (one-page) abstract** and up to **10 slides for a 10-minute presentation** on one of six days of public presentations to the SP Panel. Advanced submission is necessary for the abstract so that abstract sorting can result in the presentation schedule in advance of the meeting. The panel reserves the right to schedule all, some, or none of the abstracts submitted for presentation, to recruit additional abstracts for submission, and to not select for presentation a specific submitted abstract. An option for presenting remotely will be available and is encouraged. Logistics for the two 3-day meetings is available on the USBPO website

<https://www.burningplasma.org/activities/?article=2014%20FESAC%20Strategic%20Planning%20Panel>

Dates: 3-5 June and 8-10 July, inclusive, 8:30am – 5:30pm

Location: Washington DC metropolitan area (Gaithersburg, Rockville, or Bethesda)

Hotel: to be announced

Tentative Schedule on June 3,4,5 (subject to change based on abstracts received)
"Heat Fluxes, Neutron Fluences, Long Pulse Length" [i.e., *Burning Plasma: Long Pulse*]

Tues (12 talks):

Materials science

Plasma-on-materials interaction

Fusion neutrons and the fusion nuclear environment

Tritium behavior, processing, and control

Liquid metal breeders

Advanced Design Studies

Long pulse length requirements, engineering, and technology

Stellarators, Other

"Astrophysical Phenomena, Plasma Control Important for Industrial Applications"

[i.e., *Discovery Science*]

Wednesday (12 talks):

Low-Temperature Plasma Science

High-Energy-Density Laboratory Plasmas

Laboratory Astrophysics
Federal Agencies (NASA, NSF, DOE-NNSA, DOE-SC)
Other, Stellarators overflow

“Discovery Science, Advanced Measurement for Validation,” [i.e., Discovery Science]

Thursday (12 talks):

Universities
Plasma Science Frontiers
Mid-size user facilities
International Partnerships, Other, Overflow

Tentative Schedule on July 8,9,10 (subject to change based on abstracts received)

“Prediction and Control” , “Advanced Measurement for Validation” , “Major Facilities”
[i.e., *Burning Plasma: Foundations*]

Tuesday (12 talks): 3 from Asia (EAST, KSTAR, JT-60SA), 3 from Europe (JET, ASDEX-U, ITER), PPPL, C-Mod, Gen. Atomics, small Spherical Tori, Other

Wednesday (12 talks): Measurement Innovation, Developing a Long-Range Strategy, Universities, International Partnerships, Other

Thursday (12 talks): Theory and Simulation, Plasma-on-Surface Interaction, Other, Overflow

Presentation-format guidance is provided here.

Length of each **presentation**, not including questions, is 10 minutes. Animations are discouraged. **Question and answer time** with the panel, up to 20 additional minutes, will follow each presentation.

For presentation categories *“Prediction and Control”* and *“Long Pulse and Materials”*, **please place the presentation subject into the context of a prior report or study and discuss the presentation content in terms of the metrics used in the referenced report or study.** The following documents are the primary references to be used for providing context and at least one should be referenced explicitly, although other documents are suitable as secondary references.

1. DOE/SC-0102, FESAC Report on Priorities, Gaps and Opportunities: Towards a Long-Range Strategic Plan for Magnetic Fusion Energy, October 2007
2. Magnetic Fusion Energy Sciences Research Needs Workshop Report (2009)
3. DOE/SC-0149, FESAC Report on Opportunities for Fusion Materials Science and Technology: Research Now and During the ITER Era, February 2012
4. FESAC Report on Magnetic Fusion Energy Program Priorities (2013)
5. FESAC Report on Prioritization of Scientific User Facilities during 2014-2024 (2013)
6. Opportunities and Modes of International Collaboration During the ITER Era (212)
7. Fusion Electricity: A roadmap to the realisation of fusion energy (EU, Nov 2012)
8. China CFETR Plan (2013)

For presentation category “*Discovery Science*”, **please place the presentation subject into the context of a prior report or study and discuss the presentation content in terms of the metrics used in the referenced report or study.** The following documents are the primary references to be used for providing context, although other documents are suitable.

9. Plasma Science: Advancing Knowledge in the National Interest (2007)
10. High-Energy-Density Laboratory Plasmas Basic Needs Workshop Report (2009)
11. Low Temperature Plasma Science Workshop Report (2008)

Portable Document Format (.pdf) should be used for the slides. Each file’s size should not exceed 5 Mb. Filename and document title should have the forms FESAC-SPtalkAbstract-*authorname* and FESAC-SPtalkSlides-*authorname*.

Documents should be submitted using the email address **SPwhitepapers@burningplasma.org** so that the message is received simultaneously by Mark Koepke (SP Panel) and by Mark London (USBPO).

All white papers and abstracts received will be posted or linked, for public viewing, on the following web site, where reference documents and public information about the SP Panel can be found. The intent is not to post slides.

<https://www.burningplasma.org/activities/?article=2014%20FESAC%20Strategic%20Planning%20Panel>

Slides should help the presenter address the material described in the second white paper, i.e., prioritizing initiatives in the context of current program priorities, which is the primary purpose of the public presentations to the panel. The balance of the 10 minutes may be used to address the material described in the first white paper, i.e., updating a particular scientific topic’s status and priorities. The white papers are considered the primary documents for each topic, whereas the presentation provides an opportunity for author-panel interaction regarding initiatives.

Abstracts for the first 3-day meeting will be accepted until **noon (EDT) Friday 23 May 2014**. Abstracts for the second 3-day meeting will be accepted until **noon (EDT) Friday 27 June 2014**. Submission of slides is optional. The last day slides will be accepted is 1 September.

Work on the logistics for the June meeting is underway. The panel will meet privately on Monday and Friday, with the public invited on Tuesday, Wednesday, and Thursday 3-5 June and 8-10 July. The tentative abstract categories and the tentative dates associated with each program sub-element are as follows. The agenda will be constructed based on this tentative sequence of sub-elements but adjusted, if possible, to accommodate the requests received. The venue is not yet decided but will be Gaithersburg, Rockville, or Bethesda, in Maryland, which are accessible by Metrorail (www.wmata.com), in the Washington, DC area.