Electronic Newsletter 2013-2014, Part 1

December 15, 2013

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April 2014 APS Meeting

Plan now to attend the April 2014 meeting held this year in Savannah, Georgia. A number of plenary and invited sessions will feature presentations by DAP members. Here are the key details:

What: April 2014 APS
When: April 5 through April 8, 2014
Where: Savannah, Georgia

Abstract Deadline for April 2014 Meeting:

Friday, January 10, 2014, 5PM EST

APS DAP Officers 2013-2014:
Chair: Angela Olinto
Chair-Elect: John Beacom
Vice Chair: Paul Shapiro
Past Chair: Clifford Will
Secretary/Treasurer: Grzegorz (Greg) Madejski
Deputy Sec./Treasurer: Scott Dodelson
Member-at-Large: Amy Barger
Member-at-Large: Lloyd Knox
Member-at-Large: Julie McEnery
Member-at-Large: Cole Miller
Division Councilor: Neil Cornish
Division Councilor - Elect: Miriam Forman

Questions? Comments?
Newsletter Editor: Greg Madejski
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Abstract Deadline

Abstract Deadline for April 2014 Meeting:

*Friday, January 10, 2014, 5PM EST*

The deadline for submitting your abstract to for the April 2014 APS meeting in Savannah is just around the corner!

- All abstracts must be submitted online at http://abs.aps.org/.
- All submission guidelines and details can be found online at: http://aps.org/meetings/april/scientific/
- Only APS members can submit abstracts.
- Be sure to proofread your abstract before submission.
- Select the right Sorting Categories will ensure your presentation is grouped and scheduled appropriately by the DAP sorting team.

The APS DAP Executive Committee strongly encourages all Division members to submit abstracts and to plan to attend the 2014 April meeting. Start now to make your plans to attend!
Plenary Session Highlights At The April 2014 APS Meeting:

Plenary Sessions will be from 8:30 AM to 10:18 AM: Saturday, April 5; Monday, April 7; and Tuesday, April 8.

Each plenary session will consist of three 30+6 minute talks.

The Kavli Foundation Keynote Plenary Session will be held on Saturday, April 5. Nobel Laureates Francois Englert and Peter Higgs have been invited and have accepted. A third speaker, Rafael Lang of Purdue, will review the search for dark matter.

Speakers for Monday, April 7 are confirmed: Neil de Grasse Tyson (title TBA), Naoko Kurahashi Neilson (discovery of neutrinos in IceCube), and Suzanne Staggs (polarization in cosmic microwave background).

For Tuesday, April 8, we have talks based on the hundredth anniversary of James Chadwick’s discovery that the beta spectrum is continuous. The theme of the session will be "100 years of the beta spectrum." Talks will be:

- 1. The role of beta decay in modern subatomic physics: Historical perspective. Speaker: Hamish Robertson (UWash)
- 3. Weak decays as a window to new physics. Speaker: Sheldon Stone

Other highlights: Stefan Gillessen has agreed to give a public lecture about the gas cloud being ripped apart by the Galactic Center black hole. Very timely!

Special Invited Session for April 2014: “Hot Topics,”, and the “Young Stars” Lectures:

For the April 2014 Meeting in Savannah, the Division of Astrophysics will sponsor a special invited session “Hot Topics in Astrophysics.” Two of the APS-sponsored sessions will also feature presentations by “Young Stars In Astrophysics.”

- **2014 Young Stars In Astrophysics: Early Career Recognition Lectures** will be by two young scientists selected by the Division of Astrophysics via the third annual Early Career Recognition lectures. The two winners are: Keith Bechtol (Kavli Institute, University of Chicago) will speak at the session entitled “Cosmological Constraints from the gamma-ray data” and Nathan Whitehorn (University of Wisconsin) will speak at the session entitled “Astrophysical and Cosmological Neutrinos.”

- **Hot Topics in Astrophysics:** – The DAP Executive Committee has reserved a slot in the program to allow for the presentation of particularly new and exciting results. We are still working on the lectures for the April 2014 meeting.
DAP Invited Sessions for April 2014 Meeting

The Division of Astrophysics is sponsoring or co-sponsoring a number of invited sessions for the April 2014 Meeting as follows:

- **Saturday, April 5:**
  - Neutron Star Radii
  - Astrophysical and Cosmological Neutrinos
  - Dark Matter - WIMPs
  - Issues in Quantum Gravity

- **Sunday, April 6:**
  - Early Universe
  - Dark Matter - Beyond WIMPs
  - Jets and Astrophysical tests of general Relativity
  - “Hot Topics” in Astrophysics and Cosmology
  - New Computational Techniques for Astrophysics
  - Search for Sterile Neutrinos

- **Monday, April 7:**
  - Gravitational Lensing Applications of CMB Surveys
  - Cosmological Constraints from Gamma-ray data
  - Cosmic Rays
  - Precision Big Bang Nucleosynthesis
  - Transient Gravitational Wave Sky

- **Tuesday, April 8:**
  - Results from the Dark Energy Survey
  - R-process Nucleosynthesis

The detailed schedule for the invited sessions, along speakers and summary highlights for each session, will be included in Part 2 of this newsletter, which will be distributed in early February 2014.
Student Travel Grants For April 2014 Meeting:

Once again, the DAP will offer travel grants to support the attendance of graduate students (or advanced undergraduate students) at this meeting. The amount of each grant will be up to $600 for travel related expenses for those students who are members of the DAP and who are presenting in DAP-sponsored sessions. DAP students presenting papers in related and/or co-sponsored sessions are eligible for grants of up to $300. If there are insufficient funds to support all applicants, preference will be given to applicants who have not received travel grant support from DAP to an APS meeting in the past.

Students can apply for grants at any time after notification that their abstract has been accepted into a session for the April 2014 meeting. Students who wish to apply for a grant should plan to send a copy of their submitted abstract, the name and number of the APS session for their presentation, their institutional affiliation, and the name, position, and email address of their dissertation research advisor(s) by email to Greg Madejski at madejski@slac.stanford.edu. Please also indicate whether you have either applied for and/or received an APS travel grant in the past and if so, relay details. Students are encouraged to apply for grants as soon as possible once they have been notified that their abstract has been accepted into a session.

Please note: **The deadline for applications for travel grants to the April 2014 meeting is February 15, 2014.** Applicants will be informed of decisions for travel grants not later than March 1, 2014.

Particle Physics Projects Prioritization Panel (P5)

The Particle Physics Project Prioritization Panel (P5) is charged by the High Energy Physics Advisory Panel to develop a strategic plan for U.S. particle physics that can be executed over a ten-year timescale, in the context of a twenty-year global vision for the field. Many members of the DAP are involved in projects under consideration and P5 is very interested in receiving input, so all members are encouraged to submit their suggestions and opinions to the P5 website (http://www.interactions.org/p5). Of course advice about specific projects is welcome, but more general suggestions about how to move forward with projects that are exciting to scientists from several different fields (e.g. astrophysics and particle physics) and that tend to involve scientists from many countries are especially encouraged.

The website also contains a news page that is frequently updated with summaries of activities, as well as more information about P5, including the membership, the charge, the timeframe, and the presentations at its meetings. P5 is charged with presenting its preliminary comments by March 1 and a final report on May 1, 2014.
2013 APS Fellows from the Division of Astrophysics

Please join the DAP Executive Committee in congratulating the 2012 American Physical Society Fellows who are members of the Division of Astrophysics:

- Fred Adams
- Krzysztof Belczynski
- Nick Gnedin
- Tom Jones
- Scott Kenyon
- Lyman Page
- Martin Pohl
- Urois Seljak
- David Spergel
- Jim Stone
- Francis Timmes
- Stefan Westerhoff

New Fellows will be presented with certificates and pins at the annual DAP Business Meeting which will be held during the April 2013 APS meeting in Denver. Please plan to attend this meeting to honor and personally congratulate this year's Fellows. The citations are available at the APS Web site, under “Programs” then “Honors” then “Fellowships.”
Division of Astrophysics Executive Committee Elections:

Each year the Division of Astrophysics (DAP) of the APS elects new members for the open positions on the DAP Executive Committee. The members of the DAP Executive Committee serve to address the needs and interests of the Division within the APS. The Executive Committee has responsibility for the planning and organization of all Division activities and business including detailed program planning for each annual April APS meeting.

A nominating committee has been appointed by the current executive committee. DAP members are also invited to suggest candidates for consideration. Please relay the names of suggested candidates to the DAP Secretary-Treasurer (Greg Madejski, madejski@slac.stanford.edu) by December 22, 2013.

The Division of Astrophysics (DAP) will be holding elections to fill vacancies for five open positions as follows:

- **Vice-Chair.** Term of Office: one year, followed sequentially by one year of service as Chair-Elect, and then one year as Chair, and then finally one year as Past Chair. (four years total, serving as a member of the Executive Committee through April, 2018). Duties: The Chair shall convene and preside at all meetings of the Executive Committee and Business Sessions of the Division. The Chair Elect has primary responsibility for organizing Division program sessions and activities for the annual April APS meeting.

- **Members-At-Large (two positions).** Term of Office: two years starting April 2014, term to end April 2016. Duties: The Members-At-Large will serve to enable all plans and activities of the Executive Committee, contributing to the planning and organization of Division program and serving on other DAP committees as needed.

- **Deputy Secretary/Treasurer:** Term of Office: two years, starting April, 2014, thereafter followed by an additional two years serving as Secretary/Treasurer (four years total, serving as a member of the Executive Committee through April, 2018). Duties: The Deputy Secretary/Treasurer shall directly assist the Secretary/Treasurer and serves as the Secretary/Treasurer-elect. The Secretary-Treasurer sends out necessary notices, announcements, and newsletters to the members the Division, and serves as Executive Committee liaison to the APS business office on all matters pertaining to Division finances and disbursements.

As in years past, elections will be conducted online. Every DAP member will be notified of the elections and will have online access to the job descriptions and statements for each candidate. Elections are anticipated to begin in February 2014 and will be completed by March 2014. Watch your email.

The APS DAP Executive Committee strongly encourages Division members to participate in the 2014 election. Please relay your suggestions for Executive Office Nominations to madejski@slac.stanford.edu by December 22, 2013.