

# AAS Newsletter

November/December 2011, Issue 161 - Published for the Members of the American Astronomical Society



## Table of Contents

- |          |                                  |           |                             |
|----------|----------------------------------|-----------|-----------------------------|
| <b>2</b> | <b>President's Column</b>        | <b>10</b> | <b>Candidate Statements</b> |
| <b>4</b> | <b>From the Executive Office</b> | <b>22</b> | <b>HEAD Meeting Recap</b>   |
| <b>5</b> | <b>25 Things About...</b>        | <b>26</b> | <b>Agency News</b>          |
| <b>6</b> | <b>Washington News</b>           | <b>28</b> | <b>Honored Elsewhere</b>    |
| <b>8</b> | <b>Journals Update</b>           |           |                             |



## American Astronomical Society

### AAS Officers

Debra M. Elmegreen, President  
David J. Helfand, President-Elect  
Lee Anne Willson, Vice-President  
Nicholas B. Suntzeff, Vice-President  
Edward B. Churchwell, Vice-President  
Hervey (Peter) Stockman, Treasurer  
G. Fritz Benedict, Secretary  
Richard F. Green, Publications Board Chair  
Timothy F. Slater, Education Officer

### Councilors

Bruce Balick  
Richard G. French  
Eileen D. Friel  
Edward F. Guinan  
Patricia Knezek  
James D. Lowenthal  
Robert Mathieu  
Angela Speck  
Jennifer Wiseman

### Executive Office Staff

Kevin B. Marvel, Executive Officer  
Tracy Beale, Membership Services Coordinator  
Chris Biemesderfer, Director of Publishing  
Kelly E. Clark, Chief Financial Officer  
Kim Earle, Director of Meeting Services  
Richard Tresch Fienberg, Press Officer and Education & Outreach Coordinator  
Lisa Idem, Meetings Manager  
Scott Idem, Systems & Network Director  
Bethany Johns, John Bahcall Public Policy Fellow  
Judith M. Johnson, Director of Communications  
Jerry Lin, IT Support Assistant & Web Applications Developer  
Kara North, Meetings Abstract Administrator  
Faye C. Peterson, Director of Membership Services  
Deyonna Roberts, Accounting Intern  
Crystal M. Tinch, Communications Manager  
Annette Williams, Acting Meetings Abstract Administrator  
Donya Williams, Executive Assistant

### AAS Newsletter

Judith M. Johnson, Editor  
Crystal M. Tinch, Associate Editor  
Jeff Linsky, U. Colorado, Associate Editor, Letters

The *AAS Newsletter* (ISSN 8750-9350) is published bi-monthly by the American Astronomical Society, 2000 Florida Avenue, NW, Suite 400, Washington, DC 20009-1231; Tel: 202-328-2010, Fax: 202-234-2560, [aas@aas.org](mailto:aas@aas.org); [www.aas.org](http://www.aas.org).

*Items of general interest* to be considered for publication in the *AAS Newsletter* should be sent to [crystal@aas.org](mailto:crystal@aas.org). Appropriate pictures are welcome. For information about deadlines and submitting articles, see <http://aas.org/publications/newsletter.php>. Items submitted to the *AAS Newsletter* are not automatically included in the AAS Electronic Announcements or vice versa. Submit electronic announcement items to [crystal@aas.org](mailto:crystal@aas.org).

### Front Cover

Irregular Spiral IC4182. Credit: G.J.Jacoby, M.J.Pierce/NOAO/AURA/NSF

# President's Column

Debra Meloy Elmegreen, [president@aas.org](mailto:president@aas.org)



Part of the core mission of the AAS is the training of our young astronomers and the dissemination of our knowledge to others. I would like to focus briefly on these items, four and five from our Mission and Vision Statement: “4. *The Society, through its members, trains, mentors and supports the next generation of astronomers*; 5. *The Society assists its members to develop their skills in the fields of education and public outreach at all levels.*” ([http://aas.org/about/mission\\_and\\_vision](http://aas.org/about/mission_and_vision)). The “New Worlds, New Horizons” astronomy and astrophysics decadal report emphasized

the need to communicate and share science with our young people. The “Vision and Voyages” planetary decadal survey report endorsed investment in Education and Public Outreach activities. How do we fare as a country in science literacy? Not well. According to the 2011 report of the National Center for Education Statistics of the U.S. Department of Education and Institute of Education Sciences about testing secondary school students in science literacy ([http://nces.ed.gov/programs/digest/d10/tables/dt10\\_408.asp?referrer=list](http://nces.ed.gov/programs/digest/d10/tables/dt10_408.asp?referrer=list)), the U.S. ranked 17<sup>th</sup> out of 34 countries that are part of the Organisation for Economic Co-operation and Development (OECD); Finland was number one, followed by Japan and Korea. The NSF National Science Board, in examining STEM education data and trends, notes that 12<sup>th</sup> grade U.S. science scores are below “proficient” levels (<http://www.nsf.gov/nsb/sei/edTool/edTool.html>). We all stand to benefit from a more technologically and scientifically aware society. Of course astronomy is an obvious conduit for drawing children into STEM fields because of its broad popular appeal. Many young people learn about astronomy from activities outside of formal classroom training, so this is where AAS members come in.

To further the involvement and training of AAS members in outreach aimed at young people, Education Coordinator Rick Fienberg will be presenting to the Executive Committee an outline of the new AAS Astronomy Ambassadors program for our junior members, now in the planning stages.

There are of course many resources available to help with all stages of education and outreach. The *AAS Astronomy Education Review* has recently posted “Good Reading from Other Sources on Astronomy Education and Outreach,” [http://aer.aas.org/resource/1/aerscz/v10/i1/p010301\\_s1](http://aer.aas.org/resource/1/aerscz/v10/i1/p010301_s1), with several dozen references for all levels. Most of you already know about the wonderful zooniverse project (<http://www.zooniverse.org/>) (we heard about one of its components, Galaxy Zoo, in Boston) that is a citizen

science effort engaging nearly half a million people in several different data-based astronomy research projects. There are also many other helpful guides available from the National Academies. At an NRC Division of Engineering and Physical Sciences meeting recently, I heard an interesting talk by the National Academies Press Executive Director Barbara Pope, who discussed the evolution of NAS publications, including the fact that many are now freely available as pdf downloads. For example, there's the recent "Surrounded by Science: Learning Science in Informal Environments," [http://www.nap.edu/catalog.php?record\\_id=12614](http://www.nap.edu/catalog.php?record_id=12614), which features advice and conclusions and a podcast on informal learning from experts in a variety of settings and fields. Another interesting NAS educational publication is "A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas," [http://www.nap.edu/catalog.php?record\\_id=13165](http://www.nap.edu/catalog.php?record_id=13165), authored by the Board of Science Education and the Division of Behavioral and Social Sciences and Education to help outline expectations that can be used to develop new state-wide educational standards. Perhaps more relevant to many AAS members is their "Promising Practices in Undergraduate Science, Technology, Engineering, and Mathematics Education," [http://www.nap.edu/catalog.php?record\\_id=13099](http://www.nap.edu/catalog.php?record_id=13099), which summarizes two workshops on the subject. As discussed in *NWNH* and elsewhere, an astronomy professional master's program could be advantageous for students who wish to pursue more preparation for technical careers. For departments who may be considering whether to offer an astronomy master's program, there is a useful study on "Science Professional: Master's Education for a Competitive World," [http://www.nap.edu/catalog.php?record\\_id=12064](http://www.nap.edu/catalog.php?record_id=12064).

Efforts aimed at increasing the exposure of young people to astronomy and general science may also ultimately help to change the underrepresentation of women and minorities in scientific fields, an ongoing challenge in the astronomical community as well. In a 2009 article about Sally Ride's efforts in developing STEM-field programs for children, <http://news.bbc.co.uk/2/hi/technology/8407139.stm>, the National Science Foundation noted that "women represent 46% of the workforce but only hold 25% of the jobs in science, engineering and technology." One encouraging effort to increase these numbers by targeting young people is a

National Academy of Sciences website project entitled "I was wondering" <http://www.iwaswondering.org/about.html#science>, inspired by a book series on "Women's Adventures in Science." The books describe contemporary female scientists, including planetary astronomer Heidi Hammel. The website, aimed at middle school students, has science activities, games, and comic adventures based on the research of the featured scientists, and these look to me like a great way to engage the young people in our lives and communities to science.

In mid-October the AAS Executive Committee will be meeting for its usual half-day retreat in Washington to discuss ongoing AAS issues and initiatives aimed at satisfying our Society's strategic goals. Division leaders will also gather for a workshop designed to introduce them to best practices in management and governance in a non-profit corporation, and to share ideas of Division leadership. The Executive Committee and Division leaders will meet jointly for a half day so that we can discuss how to be more effective as a Society in meeting the needs of astronomers across a diverse set of disciplines.

Meanwhile we continue to advocate for recommendations of the Decadal surveys (astronomy and astrophysics, planetary, and heliophysics), reinforcing that the astronomical community can only remain vibrant through continuing federal support for all fields, through sustained research and technology development, and through a range of ongoing small, medium, and large projects. We are encouraged by the support of astronomical sciences in the early fall Senate Appropriations bill, but there is a long way to go before the House and Senate conversations lead to concrete results. Hopefully when we all meet in January, the federal outlook for astronomy will be clearer and more positive. See you in Austin!

# From the Executive Office

Kevin B. Marvel, Executive Officer, [marvel@aas.org](mailto:marvel@aas.org)

---



The current economic situation is front and center in everyone's mind these days. From the personal to the institutional to the national, the crisis sparked by the demise of the housing bubble continues to impact everyone and the Eurozone crisis is not helping matters.

I am happy to say that the Society is doing extremely well financially in this difficult time, primarily through careful budgeting, cost saving and attention to the bottom line. The financial oversight provided by your volunteer leaders is critical at a time like this and the Officers, Councilors and members of the three financial committees (Investment, Budget and Audit) all play critical roles in ensuring the smooth financial operation of your AAS.

It is very important to remember that the Society—unlike many other non-profit scientific societies—does not use proceeds from its journals for ongoing society expenses. This does place a larger financial burden on our members (as dues must be higher) and on our meeting attendees (as meeting registrations must fully cover **all** costs for the meeting and the staff that support them).

We do recover costs from our journals for the management and oversight functions so critical for their operation, such as the minor expenses of the publication board and staff salaries and costs (such as travel) for overseeing their ongoing publication and for the editorial offices that so capably handle the large flow of submitted papers and shepherd them through the peer-review process. A new strategic initiatives effort allows small transfers from the journal revenues for short-term projects, but cannot pay for staff salaries or other ongoing activities. We make up the balance of our necessary revenues from the *Job Register* and any additional monies we can garner, such as support through grants in the form of overhead. A new effort to help organize non-AAS meetings is also underway and has already met with success; the AAS meetings team provided organizational services for the Extreme Solar Systems meeting in Jackson Hole in September, generating both a well-organized meeting and a positive financial result.

My philosophy and the philosophy of the Council has been to provide the best possible services to our members and meeting attendees that are central to our mission to enhance and share humanity's understanding of the universe at the

lowest possible cost. Although this is an ongoing challenge, we continue to be successful, primarily through the cost-conscious management of our various directors, who oversee the specific programs that the Executive Office implements.

For example, we made a change (approved by Council) in the way we approach coffee breaks at our meetings. When we can provide them without significantly increasing the registration rate, we will. This may entail (as in Seattle), ticket-based distribution of food and beverage, or, as may happen at an upcoming meeting, no coffee breaks at all (unless full sponsorship can be secured).

Some people question this decision until I present them with the costs charged by typical hotel and convention center venues and we are not alone in our shock at the rates. The inspector general of the Department of Justice recently released a report claiming that the agency spent too much on meetings and highlighted the high cost of coffee breaks and other food service (\$16 muffins, for example: <http://www.mainjustice.com/2011/09/20/doj-vastly-overspent-on-conferences-ig-says/>).

I can tell you that the costs cited in the actual report are totally normal in the marketplace and not anomalous. Major hotel chains jumped to defend their pricing and point out that the cost incorporated the cost of serving the muffins and additional items like fruit and drinks. In any case, I have (reluctantly) signed checks to pay venues for gallons of coffee priced at \$75 a gallon before service charges (usually 20%, sometimes higher) or tax (sometimes as high as 10%). You can argue both sides on what the money pays for and whether it is worth it or not, but in the end, providing food and beverages at meetings is expensive. Period.

We also book our meeting locations well in advance and negotiate hard for the best possible prices. We know that it is not just the registration fee that has an impact on our members, but the cost of hotels and travel. By booking well in advance, we get the lowest possible room rates and some additional benefits that we then roll out to the attendees. Another innovation that was driven by cost was the elimination of the banquet, which always cost the Society more than the ticket price and was attended by only a fraction of the meeting attendees anyway. We will now recognize the prize-winners who do not give a plenary talk at a special in-meeting ceremony just after one of the prize lectures (starting in Austin).

On the positive side, we have managed to expand the impact of our meetings by enhancing networking opportunities

with a closing reception, ensure the highest quality presentations with current technology and a distributed digital presentation solution. We have enhanced online meeting scheduling capability, smoothed out the registration and abstract submission system and are exploring new concepts that will make it easier than ever to get the most out of our meetings personally. We are also streamlining and optimizing our communication channels and website that should in the long-run enable us to do more with less.

I hope you continue to value your membership in the AAS and the benefits, camaraderie and scientific impact we provide to our members, our meeting attendees and our

authors and subscribers. Our goal is to achieve the mission set down by Council and we are making substantial progress on many fronts. Let me know how we are doing from your perspective at any time by sending email to kevin.marvel@aas.org. I look forward to hearing from you and even better, to see you at an upcoming AAS meeting.

PS. Do not forget to take the opportunity before the end of the year to donate to the AAS program of your choice. Not only is the contribution tax-deductible, but you can support exactly what you think is most important to you personally or donate to the unrestricted fund so we can apply those funds to programs most in need.

---

## 25 Things about...Jarita Holbrook, HAD Chair



1. I was born in... Honolulu, Hawaii. The same as Barack Obama but not the same year and not the same hospital. My family was Air Force so I was born at the Military Hospital.
2. My favorite cereal is... none. I am gluten sensitive so I rarely have cereal.
3. Motto...If you are not on the verge of being fired

then you are not doing enough to cause change.

4. At work, I like to wear...very soft and flowing outfits or bright ethnic outfits totally in contrast to the masculinized ware that is expected of the Astronomy community.

5. When I get home, I like to wear...my pajamas—preferably silk!

6. The most important thing I learned from my mother was...strength under extreme pressure. She was an emergency room nurse.

7. The most important thing I learned from my father was...how to build a lawsuit against discriminatory practices, racism, and sexism. He worked for the US Government in the Equal Employment Opportunity Commission (EEOC).

8. My favorite time of day is...5am just before the sun rises.

9. My favorite holiday is...Halloween.

10. Do you untie your shoes when you take them off... No, I just slide them off unless they are too tight to get off. Why is this a question?

11. My dream car is...a Lexus Hybrid SUV. Right now I drive its little sister a Toyota Hybrid Highlander.

12. My first real job was...working in the canteen in Junior High.

13. What is the farthest you've been from home?...I would first have to define home and then determine if you mean physically or mentally. Mentally, I would say my first trip to Fiji as a new Peace Corps Volunteer especially knowing that I would be in a totally unfamiliar place for two years. Physically, if I think of my home as being Los Angeles 34 degrees North -118 degrees longitude, the furthest away that I have been is Kazan, Russia at 58N +49.5. The furthest South I have been is Moeraki Boulders, Otago, New Zealand, which is at 45 degrees south.

14. Were you named after anyone?...Yes, but my name was picked out of a baby book. It is a Hindu legend about a little bird.

15. I prefer AM or FM radio...FM except when I am driving across the desert at night.

16. Device I would never give up...Since I can't say my husband it would have to be the dishwasher.

17. Something that really annoys me...I can only list one thing?

18. One word that best describes you...Intense.

19. I make the best...curried butternut squash.

20. My favorite city is...San Francisco and Cape Town. Though nothing beats Paris for good food.

21. My favorite actress is...I don't have a favorite actress but I respect several who alternate between dramatic and comedic roles.

22. The last concert I attended was...Midnight Oil.

23. I used to play...on the men's Ultimate Frisbee team at San Diego State University.

24. Four people from history to have at a dinner party...Really? History rarely records the exploits of the marginalized. I would pick shamans from different parts of the world.

25. I think people should learn more about...the different cultures that make up what we think of as America.

# Washington News

Bethany Johns, John Bahcall Public Policy Fellow, [bjohns@aaas.org](mailto:bjohns@aaas.org)



In these austere economic times every penny for scientific research is important. AAS recently signed on to a letter to the Joint Select Committee on Deficit Reduction by the Task Force for American Innovation (TFAI) saying, “While reducing deficits is necessary for achieving long-term prosperity, it is equally necessary that we continue to prioritize spending on science and technology.”

23 November is the deadline for the committee to vote on a plan to cut \$1.2 trillion from the federal budget in the next decade. While the committee debates on large spending cuts the government operates under a continuing resolution (CR) that funds the government in this fiscal year, FY2012, until 18 November. Appropriation bills from the Senate and House must be passed by this date, otherwise there will be another CR.

The Senate has been working to finish the appropriation bills by the deadline and is beginning debate on the “minibus” appropriations bill, H.R. 2112, that combines the bills for Agriculture, Commerce-Justice-Science (CJS), and Transportation-HUD (T-HUD). The CJS bill allocates funds for NASA and NSF. When Congress does not or cannot produce separate appropriation bills in a timely fashion (by the beginning of the fiscal year on 1 October), it will roll many of the separate appropriations bills into one omnibus spending bill. In this case, three of the 12 appropriation bills are rolled into what is called a “minibus.”

The Obama Administration said in their Statement of Administration Policy (SAP), that the Administration supported the Senate Appropriations Committee’s actions. A SAP lets Congress know the official position of the White House.

White House statements on the funding for NSF say that, “The Administration supports strong funding for NSF, and appreciates the flexibility provided in the bill to transfer funding between accounts. NSF’s grants are critical to America’s scientific leadership and its competitiveness.” NSF may transfer up to \$100,000,000 from its Research and Related Activities account to the Major Research Equipment and Facilities Construction account to fully fund Ocean Observatories Initiative (OOI) or begin work on the National Ecological Observatory Network

(NEON). The White House also made a rare statement of support for the James Webb Space Telescope, “The Administration appreciates the Senate’s support for this project, which will advance our understanding of the universe and was given high priority by the astronomy and astrophysics community.”

The JWST has been made a priority at NASA. At a recent event where a full-size model of the James Webb Space Telescope (JWST) went on display at Baltimore, Maryland Inner Harbor outside the Science Center on 14 October, NASA Administrator Charles F. Bolden Jr. said, “We didn’t want to reward Webb by killing a program that was doing well,” Bolden said he does not intend to cut any single program to make sure that Webb proceeds as planned.

Rep. Frank Wolf (R-VA), the Chair of the House CJS Appropriations subcommittee, zeroed out funding for JWST and send a letter to the White House asking for a plan on where the offsets to pay for JWST may come from. Bolden said that NASA is working with the White House to provide Rep. Wolf and his subcommittee with a list of cuts across the agency.

Many planetary scientists have been concerned about the impact of JWST on planetary science. Public presentations on the JWST overruns and replan have said that \$156 million is needed this fiscal year for JWST to launch in 2018. NASA proposed for FY2012 that 50% of the funds needed come from NASA’s Divisions of Astrophysics, Planetary Science, and Heliophysics within the Science Mission Directorate (SMD) and 50% from institutional parts of the agency. The funding for JWST in FY2013 until launch is currently in the embargoed process within the White House. The President’s Budget Request (PBR) for FY2013 will be released in February 2012. However, the House and Senate bills give NASA’s science divisions a healthy dose of funding for FY2012. The Senate bill also includes funding for JWST. (see previous newsletter for more details or go to the blog at: <http://blog.aas.org>)

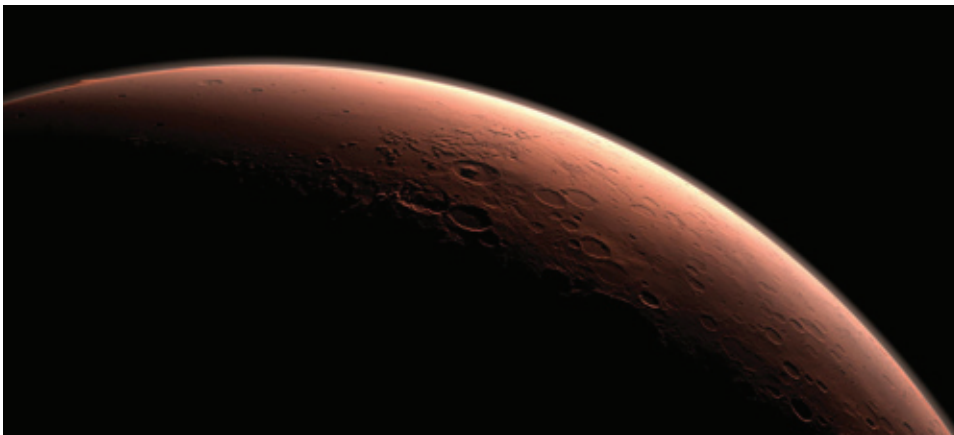
Jim Green, Director of NASA Planetary Science Division, said at the recent EPSC-DPS joint meeting in Nantes, France that the out-year budget projections from FY2013-FY2016 pose the greatest threat to planetary science. The FY2011 PBR was released in February 2010, almost an entire year before the planetary science decadal survey

## Washington News continued

was released. In the out-years from FY2012-FY2015 planetary science was proposed to increase by \$164 million, receiving \$1649.5 million by FY2015. By the next year, the spending cut rhetoric overwhelmed all debate. In the FY2012 PBR the out-year proposed a decrease to planetary science by \$284 million resulting in a funding level of \$1344.2 million by FY2015. The planned reduction in planetary science funding between these two years is about \$300 million, and comes from White House budgeting not JWST overruns.

Planetary science funding is proposed to significantly decline. It is easy to focus on potential threats in the near-term and overlook a bigger problem coming in the longer term. We cannot lose focus on the larger threat of the long-term plans for planetary science proposed by the President. The good news is that they are plans and that the benefit of a robust planetary science program is clearly defensible.

Because of this long-term planned reduction in planetary science funding, the AAS, working closely with DPS, is focused on garnering renewed White House support for planetary science for future years, while also working to support Heliophysics with our Solar Physics Division as they finalize their decadal survey and also actively fight to ensure JWST's completion. It is a tough job and we need everyone's cooperation and assistance to help win the day.



Top: From left, Van Reiner, director of the Maryland Science Center and Charles F. Bolden Jr., NASA administrator, talk with Eric Smith, deputy program director for the Webb Telescope for Goddard Space Flight Center. (Lloyd Fox, *Baltimore Sun* / October 14, 2011). Bottom: PIA14293: Daybreak at Gale Crater. Image Credit: NASA/JPL-Caltech.

## Member Deaths

The Society is saddened to learn of the deaths of the following members, former members, and affiliate members:

**Angioletta Coradini**

**Michael J. Drake**

**Soren W. Henriksen**

**Aden B. Meinel**

**Hakki Ogelman**

**George Roberts**

**William H. Smyth**

**Seth L. Tuttle**

**Francois Wesemael**

## New Letters to the Editor Policy

The Letters to the Editor section of the Newsletter provides a forum for Society members to comment on the operation of the Society, as well as to alert the readership to policy issues of broad interest in matters germane to our mission. Letters must be signed and should not exceed 250 words. The Associate Editor may edit letters, but will consult with authors before doing so. Letters will be published at the discretion of the Editors.

Send to Jeff Linsky, Associate Editor, Letters, (jlinsky@jila.colorado.edu; 303-492-7838 phone; or 303-492-5235 fax) one week prior to the AAS Newsletter deadline.

## Opting In and Out of AAS Publications

If you would no longer like to receive paper copies of the AAS Membership Directory or the AAS Calendar, please send an email to [address@aaas.org](mailto:address@aaas.org) or log in to your member record at [aaas.org](http://aaas.org).

To unsubscribe from AAS emails, contact [address@aaas.org](mailto:address@aaas.org)

For address changes, email [address@aaas.org](mailto:address@aaas.org)

# Journals Update

Chris Biemesderfer, Director of Publishing, [chris.biemesderfer@aas.org](mailto:chris.biemesderfer@aas.org)

---

## Preservation of AAS Journal Content

The AAS responsibilities toward its research journals encompass a range of activities, which can be characterized collectively as providing good stewardship of the literature. These activities include ensuring scientific quality and significance (via peer review), making certain that articles are well organized and consistently expressed (via copy editing etc.), arranging for the timely distribution of results to the community, and assuring that the literature is well tended over the long term so that it will be available to researchers in the decades and centuries to come. This last activity can be thought of broadly as the “preservation” of the research literature.

In centuries past, the function of preservation was carried out in the academy largely by libraries, who bound and shelved and cared for print volumes. When the journal of record was these print volumes, the Society’s roles were to ensure complete delivery (via fulfillment agents) and to see to it that the print issues were manufactured to archival standards (Z39.48, in case you were wondering). In the 1990s, the Astrophysics Data System (ADS) undertook to optically scan and digitize the historical astronomical literature, including the AAS journals, back to their founding issues. While the journal of record remains the print for the AAS journals prior to 1996, we now have a digital copy of all the legacy volumes of our journals.

That brings us to the digital editions that we produce today, and that we have been producing since the mid-1990s. After a manuscript is accepted for publication, the files are converted to standard formats: XML for the text, EPS and/or TIFF for graphics, and MPEG for audio and video, to name the main ones. These formats are used because they are “standards” in one way or another, and as such they are straightforward to manage, both for production of the journals now and for curation and preservation of the journals over the long term. The articles that you access online consist of files in different formats—HTML, GIF, PDF, etc.—that are derived from the primary preservation-worthy formats.

The journal of record is now the digital edition, and several things are different from the days of print: individual libraries are not the principal preservers of the digital journals, and the digital journal consists of

multiple versions, each of which may comprise a number of files of various types. The AAS has engaged a partner called Portico to provide preservation services for our journals. Portico is a trusted third-party repository for digital scholarly articles. Portico was formed through the collaboration of libraries and publishers, all of whom recognized the need for an academy-wide resource devoted to digital preservation. At the end of the production process, the digital assets of each article published in our journals are all delivered to Portico. Our preservation focus is on the standard primary formats, although all the digital assets associated with the article are being ingested into the Portico repository, including the PDF and HTML versions.

Assets that are delivered to Portico are normalized and processed so that metadata, including the relationships between files, is captured in a database. Portico serves as a “dark archive,” which means that the articles that are taken in are generally not distributed online from the Portico platform. However, if an event takes place so that an online journal can not be delivered by its publisher—the publisher goes out of business, for instance—Portico assumes responsibility for delivery of that journal to the community. DOI ownership transfers to Portico, DOI pointers are updated, and Portico places that journal on a visible (not “dark”) location on its platform.

I mentioned that Portico is accepting a number of article versions. Even though the PDF and HTML renditions of the articles are preserved, we anticipate in the long run that the primary formats will be curated (migrated to newer versions of the formats, link mechanisms updated, etc.), both by Portico and by the Society’s publishing partners, so that the online articles that are delivered to you are kept fresh and will be up to date with the devices and methods of future times. That means that the specific look and feel of today’s journals is not necessarily being maintained, but the content and all the functionality necessary for research certainly is. This should not be troubling; it is merely a reflection of the fact that user interface technology evolves fairly quickly, and we are planning so that we can adapt the journals to those changes in the future.



Let's come back for a moment to the legacy content that was digitized by the ADS. All of that legacy content is also being ingested by Portico. That means that the entire runs of the AAS journals are being actively preserved in digital form by experts in preservation techniques and policies.

One last thing. The services provided by Portico offer a level of preservation for digital content that is analogous to what the research libraries provide for the print journal of record, and that's important. However, as long as AAS

and its partners are in business and remain responsible for delivering research content every day, we all engage in prudent management practices to ensure that content is always available. Backup copies of journal assets are made for disaster recovery purposes, redundant network circuits are provisioned, and business continuity plans are made (and occasionally even reviewed).

The Society and its partners take our responsibilities for stewarding your journals very seriously.

---

## Astronomy has a Strong Presence at the NSBP/NSHP Joint Annual Meeting

Andrew A. West, Boston University

The 2011 Joint Annual Meeting of the National Society of Black Physicists (NSBP) and National Society of Hispanic Physicists (NSHP) was held in Austin in September - astronomy was well-represented at this year's meeting. AAS members Dara Norman (NOAO) and Chanda Prescod-Weinstein (MIT) co-chaired the science program for the entire meeting and ~450 students, professors and researchers from all branches of physics spent three days giving talks, presenting posters and building professional networks. Almost all of the members of the AAS Committee for the Status of Minorities in Astronomy (CSMA) were in attendance and helped staff the AAS booth in the exhibit hall.

The 2011 meeting was the strongest showing for astronomy in the history of the NSBP/NSHP joint meeting. In fact, astronomy was the most-represented sub-topic at the meeting, receiving 48 abstracts for talks and presentations (more than double that received by any other sub-topic except for condensed matter). Six astronomy sessions were organized by the NSBP/NSHP astronomy/astrophysics committee made up of Dara Norman (NOAO; co-chair), Andrew West (Boston University; co-chair), Marcel Agüeros (Columbia), Héctor Arce (Yale), and Kevin Covey (Lowell Observatory). Students, postdocs, researchers and faculty gave 24 talks in five astronomy oral sessions that ranged in topic from planetary astronomy and space physics to cosmology. The sixth session consisted of a

professional development/career panel composed of Kelle Cruz (Hunter College) and Kathryn Johnston (Columbia) and chaired by Andrew West.

One of the highlights of the meeting was the Astronomy networking dinner, an event that has become part of the tradition of the NSBP/NSHP meetings. The networking dinner allowed for informal conversation and encouraged students to talk to senior faculty and researchers about their career paths and make important professional connections. The AAS, the CSMA, AURA, AUI and the Fisk Vanderbilt Bridge program sponsored the 2011 dinner for all of the astronomers in attendance; more than 70 people attended this year's event.

In addition, AAS sponsored three student awards named in memory of the late Beth Brown. Alejandro Nuñez (Hunter College; best student talk), Keith Hawkins (Ohio University; best undergraduate poster) and Camille Avestruz (Yale; best graduate poster) were this year's winners for their respective presentations. Each will receive a complimentary junior membership to the AAS and free student registration for a AAS meeting of their choosing. Please congratulate them if you see them at an upcoming AAS meeting.

# Candidate Statements

*We are grateful for the following AAS members who have agreed to stand for election. Please support their dedication by voting. Members eligible to vote will be notified when the electronic ballot is posted on [members.aas.org](http://members.aas.org).*

## Vice-President (vote for one)

Duties of a Vice-President:

- Serves on Council;
- Responsible for selecting invited speakers for AAS meetings;
- Responsible for overall scientific content of AAS meetings;
- Two senior Vice-Presidents serve on the Executive Committee.

Term: three (3) years

### Margaret M. Hanson

Nominated Office: Vice-President

Affiliation: University of Cincinnati

Position: Associate University Dean, Professor of Physics

Ph.D.: University of Colorado, Boulder (1995)

Areas of Scientific Interest: optical and infrared observations of massive stars and stellar clusters, galactic structure, unresolved stellar clusters

AAS Positions & Dates:

- Nominating Committee (2002-2005), Chair (2004-2005)
- Councilor (2006-2009)
- Audit Committee (2008-2010)

Other experiences and positions relevant to service in the AAS Office:

- Associate Editor-in-Chief, *The Astronomical Journal* (2005-present)
- IAU Organizing Committee, Div IV, Commission 45 (2009-present)
- AURA Workforce and Diversity Committee (2010-2012)

Statement: Of central concern to nearly everyone in the astronomy community is the unprecedented budget strain we are in and are likely to be struggling with for some time. I am particularly concerned about the future of astronomy if we can not keep a strong, vibrant pipeline of talented young people entering and succeeding in our field, and prior gains made at attracting a more diverse group of astronomers may be lost. A significant break or even pinch in the pipeline will have negative ramifications for American astronomy well into the future. Over the last two decades, the society has been pro-actively addressing modern issues such as increasing diversity within its membership, improving both formal and informal astronomy education and addressing employment issues. It is time to recognize our next great call: austerity. Few of us went into astronomy to make a lot of money. It is now critical to the long-term health of our field to have a very

real conversation about how each of us can reduce our financial footprint while maintaining the same quality in science. We have great flexibility in how we use our funds and we make decisions almost daily that, with some care, can extend the life of our grants. Do you always request the full allowed per diem, even if you did not spend that much? If you are drawing a good academic salary, do you really need to charge your grant for summer salary, too? Can you find a cheaper hotel for that conference, or maybe share rooms? Given the current environment, granting agencies should be more lenient about, even encouraging, no-cost extensions for more than one year. With the prospect of reduced funds, we have seen a run on the bank: a disproportionate increase in the number of proposals submitted. This only fuels the panic when the reduced success rate becomes public. Could we each concentrate on just the few projects that our group does best, and not overwhelm the system with multiple proposals to try and beat the odds? We need to foster a more austere culture within astronomy to allow talented young astronomers to gain a foothold and retain the future health of our field. I believe the AAS leadership needs to recognize its role in encouraging its members to actively embrace such a movement and serve as a model for such actions.

### Paula Szkody

Nominated Office: Vice-President

Affiliation: University of Washington

Position: Professor of Astronomy

Ph.D: University of Washington (1975)

Areas of Scientific Interest: Cataclysmic variables, stellar evolution, asteroseismology

AAS Positions & Dates:

- *ApJ* Scientific Editor (2002-2005)
- Van Biesbroeck Prize Committee (2001-2004), Chair (2003)
- AAS Councilor (1996-1999)
- HEAD Executive Committee (1996-1997)
- Annie J Cannon Advisory Committee (1986-1991), Chair (1988-1990)

Other experiences and positions relevant to service in AAS Office:

- *PASP* Editor (2006-2012)
- AAVSO President (2007-2009), VP (2005-2007), Council (2004-2010)
- AURA Observatories Council (2004-2010), Chair (2007-2010)
- AURA Board (2007-2010)
- AURA Solar Observatory Council (2001-2004)

## Candidate Statements continued

- IAU Com 42 President (2000-2003), VP (1997-2000)
- NASA Senior Review (1996)
- AAAS Member-at-Large (1995-1999)

Statement: Having been a member of the AAS for over 35 years, I have been able to watch the growth of the membership and the ebb and flow of various astronomical fields. The areas of stars and individual observations that were important in the 70's transitioned to galaxies and space observatories in the 80's and 90's and currently to exoplanets and large survey databases. One of the major ways to keep up with what is happening in all parts of astronomy is via the AAS meetings. Invited talks by articulate speakers bring the excitement of new fields as well as the new advances in established fields to all astronomers. Giving one of those invited talks was one of the most difficult but most rewarding experiences of my career.

The meetings are the glue that holds the society members together while providing a forum for disseminating/gathering information along the transition from graduate student to post-doc to final position in academia or industry. The opportunities to network, to learn how to give a concise five-minute talk as well as teach an astronomy course for non-majors, and to hear the latest news on grants and telescope/satellites from NSF and NASA are all there. As the major responsibility of the AAS VPs is the overall scientific content and quality of the meetings, I would use my past experience in dealing with many fields of astronomy (through editorship in *ApJ* and *PASP*) and in planning topics for meetings (from AAVSO, AAAS) to ensure that the AAS meetings continue to exceed the expectations of its members and that the Council continues to make the best decisions for all of its members.

### Councilors (vote for three)

Duties of Councilors:

- Serve as part of the governing board of the AAS; and
- Have the legal responsibility to help make all decisions to manage, direct, and control the affairs and property of the Society.

Term: three (3) years

### Nancy S. Brickhouse

Nominated Office: Councilor

Affiliation: Harvard-Smithsonian Center for Astrophysics

Position: Associate Director, Solar, Stellar, and Planetary Sciences Division

Ph.D.: University of Wisconsin- Madison (1984)

Areas of Scientific Interest: Solar and stellar coronae, UV to X-ray spectroscopy, laboratory astrophysics

AAS Positions & Dates:

- Working Group on Laboratory Astrophysics (2007-present)
- Executive Committee, High Energy Astrophysics Division (2001-2002)
- Chair HEAD Nominating Committee (2002)

Other experiences and positions relevant to service in AAS Office:

- Suzaku Users Group (2005-present)
- Reviewer for NASA, Report of the NASA Laboratory Astrophysics Workshop (2010-2011)
- Einstein Fellowship Selection Committee (2010)
- Scientific Organizing Committee, more than a dozen meetings over the past decade
- Review panel, Chandra Guest Observer Program (2000)
- Review panel, Hubble Space Telescope (1998)

Statement: Astronomy has demonstrated a unique power among the sciences to capture the public imagination. This has never been more important as science today confronts a political culture indifferent to evidence-based analysis. I believe that the AAS has an ever more pressing responsibility to make the workings of the universe accessible to the public, while at the same time ensuring that science education is rigorous. This requires the continued leadership by the AAS in science outreach and education at all levels, and is key to broadening the participation of historically under-represented groups in our field.

As the organization representing US astronomy, the AAS broadly supports our community's priorities as laid out in the decadal surveys in astronomy and astrophysics, planetary sciences, and heliophysics. Facing the current fiscal climate, the AAS needs to maintain the inclusiveness of the decadal processes and continue its strong advocacy for our diverse scientific portfolio. We also need to encourage increased interaction between disciplines. My recent experience in the Working Group on Laboratory Astrophysics—now transitioning to a new AAS division—shows that forging strong connections across disciplines requires deliberate effort and good communication.

*continued next page*

## Candidate Statements continued

Many astronomers now hold important programmatic and service positions in careers without established long-term stability. As a “soft money” scientist, I can offer a perspective that will enhance the efforts of the AAS to monitor the health of the profession and strengthen career services.

### Todd J. Henry

Nominated Office: Councilor

Affiliation: RECONS/Georgia State University

Position: Director/Professor of Astronomy

Ph.D.: University of Arizona (1991)

Areas of Scientific Interest: Nearby stars, extrasolar planets, life in the Universe

AAS Positions & Dates: member since 1987

Other experiences and positions relevant to service in AAS Office:

- Director, RECONS (1994-present)
- Member, SMARTS Management Council and Operations Manager of CTIO 0.9m (2003-present)
- Member, SIM Science Team (2000-2010)
- Member, NOAO Surveys Committee (1999-2003)
- Project Scientist, NStars (1998-2003)

Statement: Astronomy is a sexy science. We search for life in our Solar System and beyond, study a star that affects our everyday lives, observe stars that explode and galaxy hearts that eat stars...and try to unravel what powers the Universe. Astronomy has an allure that reaches further than we typically recognize—nearly everyone has an opinion about Pluto’s planetary status, and who among us has not been asked for a professional opinion? Our studies connect mathematics, physics, geology, chemistry, and biology. As a member of the AAS Council, my primary goal will be to explore new ideas to extend our organization’s reach, both to the public and to those who create the budgets. If we can bring the wonder of the cosmos to others, our profession will be enriched, often in ways we don’t suspect. In this brief statement, I offer one small idea to connect us to our neighbors: let us provide to every attendee of an AAS meeting a bumper sticker that simply says, “Astronomers Bring You the Universe.” Imagine the connections we can begin to make, whether the sticker is on a vehicle, luggage, or somewhere more creative.

Perhaps such a catchphrase could even become part of AAS websites and our own electronic media resources. Astronomy is a fantastic science. Let’s let everyone know.

### J. Todd Hoeksema

Nominated Office: Councilor

Affiliation: Stanford University, Solar Observatories Group

Position: Senior Scientist

Ph.D.: Stanford University (1984)

Areas of Scientific Interest: Solar physics, solar and coronal magnetism, solar-terrestrial relations, the Sun as a star

AAS Positions & Dates:

- Solar Physics Division Chair/Vice-Chair (2006-2010)
- SPD Committee Member (1999-2001; 2010-2012)

Other experiences and positions relevant to service in AAS Office:

- AURA Solar Observatory Council Chair (2010-present); Member (2007-2010)
- Solar & Space Physics Decadal Survey Steering Committee (2010-present)
- Astro-2010 Ground Based O/IR Astronomy Program Prioritization Panel (2009-2010)
- Heliophysics Subcommittee of the NASA Advisory Council (2006-2009)
- NASA Heliophysics Roadmap Chair (2005-2006); NASA HQ Rep. (2002); Member (1999)
- Heliophysics Discipline Scientist, NASA HQ (2000-2004)
- JGR-Space Physics, Associate Editor (1997-2001)
- Organizer SOHO-4 (1995); SPD (2007, 2010); co-organizer of numerous other meetings
- Project Astro Visiting Astronomer (1994-1998)
- Wilcox Solar Observatory (since 1978); SOHO/MDI (since 1987); SDO/HMI (since 2004)

Statement: The AAS has an inspiring vision and mission, a distinguished history, and a carefully crafted strategic plan. So what? Who cares?

You are interested enough to be reading statements for councilor of the society, so you must agree that the AAS and its divisions have a meaningful role to play in your professional life. Whether it’s scientific meetings, advocacy, career development, publications, outreach, or just the opportunity for networking with the best, the AAS provides something of value to you.

That happens because working as a group with common purposes allows us to accomplish more. Collectively we can influence the debate about the importance of science and how our priorities should best be accomplished. We

## Candidate Statements continued

can communicate more effectively with each other and with the public. We can make it easier for students from any background to engage in astronomy and successfully pursue a career studying the truly inspiring. We can wrestle with scientific issues and balance competing interests. And we can expand our own horizons and challenge others to look beyond their own.

Our Society is enriched and strengthened when everyone participates and we speak together. As councilor I will work to further our goals, strengthen relationships with the divisions, increase the effectiveness of the AAS for you, and enlarge the impact of our science.

### Steven D. Kawaler

Nominated Office: Councilor

Affiliation: Department of Physics and Astronomy, Iowa State University

Position: Professor and Director of Graduate Education

Ph.D.: University of Texas at Austin (1986)

Areas of Scientific Interest: Stellar astrophysics; asteroseismology

AAS Positions & Dates:

- Scientific Editor, *The Astrophysical Journal* (2006-present)
- Shapley Lecturer (1993-present)

Other experiences and positions relevant to service in AAS Office:

- IAU Division V (Variable Stars): President (2009-2012), Vice President (2006-2009)
- IAU Commission 27 (Variable Stars); President (2006-2009), Vice President (2003-2006)
- AURA Member Representative for Iowa State University (2002-present)
- NOAO ReSTAR Committee (2007)
- NOAO Galactic TAC (2007-2009)
- AURA Management Council: National Solar Observatory (2004-2007)
- Sigma Xi, Iowa State University Chapter: President (2009-2010), Program Chair (2008-2009)
- Fellow, AAAS (elected 2005)
- Kepler Asteroseismic Investigation Steering Committee (2010-present)
- Kepler Asteroseismic Science Consortium Steering Committee (2008-present)
- Numerous review panels for NASA, NSF

Statement: It is an honor to stand for election as a Councilor for the American Astronomical Society. In my early high-school years, as I watched with wonder the manned moon landings and built my own telescopes;

I knew that while I didn't have the 'right stuff' to fly in space, I would still someday make astronomy my profession. I've been fortunate enough to have realized this ambition, though my path led not to countless nights at observatories, but to an equally engaging career in theoretical astrophysics (though I can still find my way around the night sky as well as most observers).

This aspect of astrophysics does not always reach the headlines, but is as essential to progress in astronomy as the latest ground- and space-facilities. Advocacy by the governance of the AAS has principally been for the observational side of astronomy—driven by the 'big ticket' items of obvious importance to the advancement of our field.

As a theorist, I will bring a bit of balance to the Council as an advocate for parallel development of theoretical tools for understanding the physics of our Universe. The most important vehicles for theoretical advances (and for observational for that matter) are, of course, clever people—so as a new Councilor I will work with the continuing members of the Council and the AAS membership to facilitate the ability of clever people to push the frontiers of astrophysics.

### Dara J. Norman

Nominated Office: Councilor

Affiliation: NOAO

Position: Assistant Scientist

Ph.D.: University of Washington (1999)

Areas of Scientific Interest: AGN, galaxy evolution, gravitational lensing

AAS Positions & Dates:

- CSMA (2006-current)
- Demographics committee (2010- present)

Other experiences and positions relevant to service in AAS Office:

- AURA/NOAO Diversity Advocate (2009-present)

Societies:

- IAU member (2003-present)
- National Society of Black Physicists member (1996-present)
- AAS member (1993-present)

Panels:

- NSF review panel for Astronomy and Astrophysics Postdoctoral Fellowship (2009)

*continued next page*

## Candidate Statements continued

- Chandra X-ray Observatory review panel (2007)
- NASA review panel for Beyond Einstein Foundation Science (2006)
- NSF review panel for Research Experiences for Undergraduates (REU) sites (2004)
- NSF review panel for observational cosmology (2003)

### Committees:

- Joint Annual Meeting of the National Society of Black Physicists and the National Society of Hispanic Physicists Program Committee Co-Chair & Executive Committee member (2011)
- DECam Workshop, Scientific Organizing Committee (2011)
- National Society of Black Physicists, Co-Chair ASTRO Committee (2010-present)
- Women in Astronomy, Organizing Committee (2009)
- AURA Workforce and Diversity Committee (2009-present)

### Other service:

- Organizer for AAS special sessions: “Mentoring a New Generation of Minority Astronomers,” “Mentoring Astronomers: Students to Faculty” and “Strategies for Addressing Harassment and Prejudice”
- Principal Organizer and Co-author for the Decadal Survey white papers, “Significantly Increasing the Numbers of Minorities in Astronomy in the Next 10 Years” and “Research Science and Education: The NSF’s Astronomy and Astrophysics Postdoctoral Fellowship”

Statement: The goals of the AAS are to promote astronomical research and understanding by supporting members through publications and forums for the exchange of scientific information and ideas. My goals while on the council would be to insure that the AAS provides strong support of members, their research, and the community’s long-term scientific goals, and continues to expand inclusiveness to support all members.

As a current member of the CSMA, I am working towards these goals. I am a principal author of the decadal survey white paper entitled, “Significantly Increasing the Numbers of Minorities in Astronomy in the Next 10 Years.” I am serving as the co-chair of the ASTRO session for the Joint Annual meeting of the National Societies of Black and Hispanic Physicists scientific conference. I have organized several AAS special sessions to promote diversity and mentoring for all our community as well as

a session that tackled the problem of harassment within our community. As a member of the AAS Demographics Committee, I have been active in designing ways in which the AAS might better understand the community’s workforce challenges and promote practices that better serve the membership. I hope to bring my experience to the council.

## Amy Simon-Miller

Nominated Office: Councilor

Affiliation: NASA Goddard Space Flight

Position: Associate Director, Solar System Exploration

Ph.D.: Astronomy, New Mexico State University (1998)

Areas of Scientific Interest: Planetary atmospheres

AAS Positions & Dates:

- AAS Committee on the Status of Women (2001-2007)
- AAS Division for Planetary Sciences Committee (2005-2008)
- AAS International Travel Grant Review Committee (2003)

Other experiences and positions relevant to service in AAS Office:

- NRC Space Studies Board Planetary Science Decadal Survey Steering Committee & Giant Planets Panel Vice-Chair (2009-2011)
- Outer Planet Assessment Group Steering Committee (2005-2007)
- Planetary Systems Science Management Operations Working Group (2009-2012)
- Planetary Data System Management Oversight Working Group (2002-2005)
- NRAO Very Large Array/Green Bank Telescope proposal reviewer (2006-2007)
- NASA Review Panels: Planetary Astronomy, Planetary Atmospheres, ADP/LTSA, and Outer Planets Research Programs (various)
- Hubble Space Telescope Review Panels (2006, 2009, 2011)
- Organizing Committee, Women in Astronomy II and III Workshops (2003, 2009)

Statement: Despite maintaining separate Divisions within the AAS, astronomical research has become increasingly cross-disciplinary, as fields such as exoplanet research have crossed traditional boundaries. In an era with decreased science and mission budgets, but lofty Decadal Survey goals and desired access to common facilities, it is very important that we identify synergies and ways to enable all areas of astronomy to work together for mutual benefit.

## Candidate Statements continued

As an AAS Councilor I would bring the perspective of the planetary science community and my experience from the DPS Committee and the recent planetary Decadal Survey. I would strive to include the diverse viewpoints of all the Divisions in all policy and funding discussions. In addition, as a former member of the CSWA, and organizer of two conferences relating to women and underrepresented minorities in astronomy, I would seek to include a balanced view on inclusion and retention of these groups, as well as professional development for all early-career astronomers.

### Nominating Committee (vote for two)

- Duties of Nominating Committee:  
Nominate candidates for the positions of Officers and Councilors of the AAS for election by membership. For positions of Treasurer, Secretary, and Education Officer, the decision is made in consultation with the Executive Committee of the AAS.

Term: three (3) years

### Elizabeth Blanton

Nominated Office: Nominating Committee

Affiliation: Boston University

Position: Assistant Professor

Ph.D.: Columbia University (2000)

Areas of Scientific Interest: Clusters of galaxies, AGN feedback, galaxy formation and evolution, cosmology

AAS Positions & Dates:

- Member, AAS (1992-present), Member, HEAD (1994-present)

Other experiences and positions relevant to service in AAS Office:

- Member, Proposal Review Panels (Chandra (chair), HST, NRAO, GALEX, Lowell Obs., Einstein Fellowship) (2003-2011)
- Member, Chandra Users' Committee (2008-2011)
- Member, Suzaku Users' Committee (2005-present)
- Member, SOC, "Structure in Clusters and Groups of Galaxies in the Chandra Era," (2011)
- Member, SOC, "Radio Galaxies in the Chandra Era," (2008)
- Member, Academic Policy Committee, College of Arts and Sciences, Boston University (2006-2008)

- Member, Natural Sciences Curriculum Committee, College of Arts and Sciences, Boston University (2004-2006)
- On-screen video guide for museum exhibit "Black Holes: Space Warps and Time Twists," Boston Museum of Science (2009), traveling U.S. exhibit through 2012
- Chandra Fellow (2001-2004)

Statement: I gave my first presentation at an AAS meeting in 1992, while an undergraduate at Vassar College. I was approached by much more established astronomers who had spectra to go with my supernova images, and my first published paper was born. I was struck then by the relatively small number of people in our field, the ease with which so many are accessible, and their willingness to share their enthusiasm and expertise. We need leaders in the AAS who will foster outreach to students at all levels, and the public at large. We need strong representation to communicate the vital importance of astronomical research to our political leaders, especially at this critical time with funding seriously at risk. We need AAS leaders who will represent the Society's diverse membership, including those with different backgrounds, different work environments, and wide variety of research interests. I have experience in small college and large university environments, and Galactic as well as (currently) extragalactic research, using observations spanning radio to X-ray wavelengths, giving me a broad basis for evaluating potential candidates. I would be honored to serve as a member of the Nominating Committee.

### Arne A. Henden

Nominated Office: Nominating Committee

Affiliation: American Association of Variable Star Observers (AAVSO)

Position: Director

Ph.D.: Indiana University (1985)

Areas of Scientific Interest: Variable stars, instrumentation

AAS Positions & Dates: n/a

Other experiences and positions relevant to service in AAS Office:

- Council, AAVSO (1998-2005)

Statement: The nominating committee produces candidate slates for the main officers of the society. This is an important duty, not only to select the best candidates, but also to reflect the needs of the AAS and the wishes of its members. As Director of the AAVSO, I have assisted our nominating committee for many years and am familiar

*continued next page*

## Candidate Statements continued

with the process. I would be pleased to serve on the AAS nominating committee.

### Jacob Noel-Storr

Nominated Office: Nominating Committee

Affiliation: Rochester Institute of Technology

Position: Assistant Research Professor

Ph.D.: Columbia University (2004)

Areas of Scientific Interest: Active galactic nuclei, astronomy education

AAS Positions & Dates:

- Astronomy Education Board (2004-2006)
- Committee on Future Communications in Astronomy (2006-2008)
- Editor: *Spark: The AAS Education Newsletter* (2005-present)

Other experiences and positions relevant to service in AAS Office: n/a

Statement: I have been active within the AAS community for many years now, and feel I can contribute well to the nomination committee in selecting and communicating with potential nominees for positions within the organization. I am involved with both the research and education communities, giving me a broad perspective on individuals who may be encouraged to engage actively in roles within the society.

### Education Officer (vote for one)

Duties of the Education Officer:

- Responsible, under the direction of Council, for the coordination and oversight of all educational activities of the Society;
- Serves on the Council; and
- Chairs the Council-appointed committee which will advise the Council regarding the education programs of the Society

Term: three (3) years

### Edward E. Prather

Nominated Office: Education Officer

Affiliation: Steward Observatory and the Center for Astronomy Education (CAE), University of Arizona

Position: Associate Professor of Astronomy & Executive Director of CAE

PhD: University of Maine (2000)

Areas of Scientific Research: Education Research in Astronomy, Astrobiology, Physics, and Planetary Sciences and Teaching Professional Development

AAS Positions & Dates:

- Appointed Member, AAS Astronomy Education Board (2009-2012)
- Columnist, Astronomy Education Research Feature Section for *Spark: The Education Newsletter of the AAS* (2009-present)
- *Astronomy Education Review*, published by the AAS, Advisory committee (2007-2009)

Other experiences and positions relevant to service in AAS Office:

- Research Director and Co-I of the NSF CCLI Phase III Centers grant that funds the Collaboration of Astronomy Teaching Scholars (CATS) Program (2007-present)
- Appointed Member, American Institute of Physics' National Committee on Physics Education (2010-2013)
- Recipient, American Association of Physics Teachers David Halliday and Robert Resnick Award for Excellence in Undergraduate Physics Teaching (2011)
- Recipient, Univ. of Arizona College of Science Innovation in Teaching Award (2009)
- Recipient, Univ. of Arizona Provost's General Education Teaching Award (2006)
- Member, EPO advisory panel of the National Research Council's Astronomy and Astrophysics Decadal Survey (2009)
- EPO Deputy Director, Life and Planets Astrobiology Center (LAPLACE), NASA Astrobiology Institute, Univ. of Arizona (2007-2008)
- LSST EPO, Advisory Committee (2009-current)
- Zooniverse, Citizen Scientist, Education Advisory Committee, (2009-current)
- NOAO/NSO EPO, Advisory Committee (2009-current)

Statement: The AAS does an amazing job of increasing the understanding and appreciation of the role astronomy plays in our society. Whether the setting is a science classroom or community outreach event or museum exhibit, astronomy captivates people from all walks of life and provides us with an incredible vehicle for improving science literacy. For over a decade I have been working as a teacher of astronomy and a researcher on issues related to the teaching and learning of astronomy.

As Executive Director of the Center for Astronomy Education (CAE) I have lead a national collaboration of undergraduate students, grads, postdocs, college faculty and informal education specialists all working together to understand how we can best engage learners and the



## Candidate Statements continued

public with regard to contemporary topics and issues related to astronomy and space science. I am dedicated to the mission of the AAS and to its education efforts. As a current AAS Astronomy Education Board member and facilitator of the long running CAE Teaching excellence workshops I have worked hard to increase the capacity and impact of AAS members with regard to funding, policy, research and instructional issues. If elected as AAS Education Officer I will work hard to expand the educational opportunities and programs of the AAS for its membership and promote collaborations with other professional societies and industry partners to increase the impact of our work towards bringing the message of our society and the wonder of astronomy to the nation.

### USNC-IAU Representative: (vote for one)

Duties of AAS Representatives to the US National Committee of the International Astronomical Union (USNC-IAU):

- Responsible for making decisions regarding US participation in the IAU;
- Recommends astronomers for IAU membership;
- Reviews IAU Travel Grant Applications; and
- Represents the US at IAU General Assemblies.

Term: three (3) years

### Arlo U. Landolt

Nominated Office: USNC-IAU Representative

Affiliation: Louisiana State University

Position: Ball Family Professor Emeritus

Ph.D.: Indiana University (1963)

Areas of Scientific Interest: Astronomical photometry

AAS Positions & Dates:

- Secretary (1980-1989, 1995-2004)
- Member, Van Biesbroeck Prize Committee (2005-2008); Chair (2007-2008)

Other experiences relevant to service in AAS Office:

- Secretary, Section D, AAAS (1970-1978)
- Program Director, Astronomy Section, NSF (1975-1976)
- Secretary, USNC-IAU (1980-1989, 1996-2004)
- Member of Governing Board, American Institute of Physics (1985-1992, 1995-2004)
- President, Division IX, IAU (2000-2003)
- President, Commission 25, IAU (2003-2006)

Statement: The U.S. National Committee for the International Astronomical Union (USNC-IAU) provides the formal interface between the AAS, the U.S. astronomical community, and the international

astronomical community. I will put to use my past experience with national and international astronomical business to continue and enhance our national astronomical communities' ties and interests with astronomers the world over.

### Smita Mathur

Nominated Office: USNC-IAU Representative

Affiliation: The Ohio State University

Position: Professor

Ph.D.: Indian Institute of Science (1991)

Areas of Scientific Interest: Active galactic nuclei, galaxies, black holes, and the intergalactic medium

AAS Positions & Dates: n/a

Other experiences and positions relevant to service in AAS Office: n/a

Statement: As a young graduate student from the Tata Institute of Fundamental Research (India), the first international astronomy meeting I attended was the IAU general assembly in New Delhi. The experience was overwhelming, yet exhilarating: listening to Dr. Vera Rubin talk about the evidence for dark matter was fascinating. I have lived in the US for 22 years now, first as a postdoc at CfA and now as a faculty member at Ohio State, but I still maintain my Indian roots and have many international collaborations. I think that science is universal, without national boundaries. And yet I believe in missions of organizations like IAU that help promote science in developing countries. My scientific interests are broad; I have worked on supermassive black holes, galaxies, physics of active galactic nuclei and the large-scale intergalactic medium. I am also a multi-wavelength astronomer, with experience in radio-IR-optical-UV-X-ray bands. My work is from ground-based as well as from space-based observations. As such I feel I can be a representative of the broad US astronomy community.

*Members eligible to vote will be notified when the electronic ballot is posted on [members.aas.org](http://members.aas.org).*

*Members for whom we do not have email addresses will receive a paper ballot by first class mail. You may verify your email address at [members.aas.org/directory](http://members.aas.org/directory) and if necessary send corrections to [address@aas.org](mailto:address@aas.org).*

*Any other member wishing to use a paper ballot may request one by phone (202) 328-2010 ext. 115, fax (202) 234-2560 or by email to [ballot@aas.org](mailto:ballot@aas.org). If possible, include your member number with your request.*

# Committee on Employment

Liam McDaid, [mcdaidl@scc.losrios.edu](mailto:mcdaidl@scc.losrios.edu)

## Education as Plan B

It is a common afterthought while speaking with some researchers that if they had to change careers, their backup plan is to go into teaching. The language used is often casual in this regard as if such a plan is trivial to carry out successfully. I will not detail how insulting this can be to people already in the education field—often with the implication that any researcher can be a good educator automatically. The bias that has always existed in our field (or science in general) toward research being more important than education is an old chestnut that is debated endlessly to no end, and I will not indulge in such a thing here. I will mention *en passant* that (almost?) all of us in the US have the same view toward sharing our research with the public. Everyone agrees that public outreach is a Good Thing. But what if research programs could be created that study and improve the quality of astronomy education? Wouldn't that be a worthy endeavor?

For anyone who thinks that astronomy education could use a researcher to shake things up, you may find the field rather crowded. The reality is that astronomy researchers are already in education and have been for some time. Researchers such as T. Slater, S. Slater, E. Prather, A. Speck, A. Fraknoi, M. Zeilik, and many others have spent much time and research on how to make astronomy 101 classes better. Sometimes work is done on improving more advanced classes, as evidenced by a recent thread on *Astrolrner*—the astronomy education listserv. Also, many blogs such as *Astrobetter* exist to help astronomy educators hone their craft. It is a big field and still growing. Research on better astronomy education modalities and/or pedagogies has been going on since the 90s, and our sibling discipline of physics started the ball rolling with the force concept inventory long before that. Several groups that focus exclusively on research in astronomy education now exist, such as the Center for Astronomy Education (CAE) at the University of Arizona and the Center for Astronomy & Physics Education Research (CAPER) at the University of Wyoming, complete with PhD programs in the field of astronomy education.

This wealth of education research is already showing up in hiring committees. Someone who is familiar with the literature on astronomy education and utilizes non-traditional teaching styles (translation: someone who does not just lecture) will have an edge for a teaching position

over a researcher without such knowledge or skills. This is not to say that a researcher trying to move into a more educational role could not learn these techniques or read up on the literature—surely they could. Yet there is a growing feeling in some quarters of expecting a prospective professor to show up for an interview (at the very least) already familiar with the education research literature if not already using different teaching techniques. It would not be especially shocking in the future if all academic astronomy positions expected their candidates to have such backgrounds.

Since astronomy education is already intently studied, there are programs in place to help anyone who wants to be not only an educator, but a researcher as well. It is a wonderful opportunity for someone to actually test the education models they propose or have thought about. In the end, the students win as well—which is a great thing in a time of increased tuition scrutiny by parents of students as well as legislators. In the case of graduate students who already have an interest in this field, the benefits are obvious. For graduate students who nervously follow the contortions of the federal budget while wondering if there will be any research positions for them when they get their degree, this presents them with an opportunity to consider doing research while having (maybe) a better chance of long-term employment. I should also mention that there is no reason why astronomy education researchers at universities can't also do traditional research. The field of astronomy education is also as fascinating as studying the origins of the Solar System, with a major research goal of figuring out just how humans learn and process information. It is also a field where a more intriguing question can be asked: do all humans have enough in common cognitively to make it possible to establish a minimal common ground for any education program? Graduate students moving in this direction now may find themselves in a better job situation when they do graduate, although I must make the standard prognostication disclaimer that past performance is no guarantee of future returns.

Graduate students also have a unique opportunity to put educational ideas to the test immediately. As TAs, they are the point of contact between most astronomy students and their classes. They are able to introduce cutting edge

## Education as Plan B continued

educational ideas into how they interact with students and find out what works and what does not. Given the dearth of formal teaching methods in graduate programs, this is the best way of experimenting with different teaching ideas while finding out more about what is already known.

Those hopefully few astronomers who have little or no interest in education might want to consider why universities exist, as far as most Americans are concerned, and may want to investigate how professors at early-modern universities were paid. As a most eloquent astronomer, Carl Sagan, once said: “We’ve arranged a global civilization in which most crucial elements profoundly depend on science and technology. We have also arranged things so that almost no one understands science and technology. This is a prescription for disaster.” Education is about the only counter we have to keep ourselves from becoming marginalized or treated as irrelevant by society. An isolated scientific “priesthood” *a la* Asimov’s *Foundation* series benefits no one and it

is unlikely that the scientists in such a scenario will be in charge. At some level, every scientist is responsible for educating the public—the ones who, in the end, pay the bills. In truth, education is no Plan B. It is a growing research field in its own right that can hold great interest for any researcher—and it is growing in an age of budget cuts. That is something worth considering.

*The AAS Committee on Employment is pleased to highlight useful resources for astronomers, and welcomes your comments and responses to this and previous columns. Check out our website ([www.aas.org/career/](http://www.aas.org/career/)) for additional resources and contact information for the committee members. We are always looking for guest columnists in “non-traditional” careers. If you are willing to contribute, or have an idea for a future column, please contact the Employment Column Editor, Liam McDaid ([mcdaidl@scc.losrios.edu](mailto:mcdaidl@scc.losrios.edu)). The AAS committee on employment exists to help our members with their careers. Your ideas are important, so let’s hear them!*

---

## Committee on the Status of Women in Astronomy

Marc Postman, Space Telescope Science Institute, [postman@stsci.edu](mailto:postman@stsci.edu)

### Repercussions for Sexual Harassers

How do we as a professional society deal with the infrequent, but very harmful, presence of repeat sexual harassers amongst our colleagues? This is a serious issue that has been the topic of CSWA discussion, driven by more than a few heart-wrenching emails and communications that have been received over the course of the past few years. While most U.S. universities and research institutions have well-documented procedures for reporting sexual harassment and while such institutions are working harder to ensure gender-friendly work environments, the problem has not vanished. The problem becomes particularly thorny when a perpetrator of repeat sexual harassment is also an accomplished and renowned astronomer. Often the “reputation” of such an individual is widely known. What message does it send when people suffer no significant career setbacks as a result of their abhorrent behavior? Does intellectual brilliance excuse all? Certainly not. Would an award’s prestige be diminished if it were given to such an individual? I believe so. It is

essential, of course, to ensure confidentiality and fair treatment under the law for all—including the accused. Rumors are all too easily circulated and often inaccurate. But given that the emotional, psychological and career damage done to the victims of such behavior is very real and very substantial, it is essential for our community to do better to make such cases extremely rare. I advocate a zero tolerance policy for such behavior. I believe that most of my colleagues do as well. The challenge is in identifying approaches that are truly effective without violating civil liberties.

The longstanding hurdle in addressing repeat sexual harassment is that victims are often the subordinates of the harasser. For the victim to proceed with a formal complaint sometimes means risking one’s career progress, for while confidentiality is pursued in the complaint

*continued next page*

process, its maintenance cannot be guaranteed. This is not to say that existing policies should be avoided. Far from it. To victims of abuse: it is very important to seek help. The law is on your side. If proceeding with a full inquiry is too daunting initially, then seek a sympathetic ear within your organization. Know that the vast majority of the astronomical community supports gender and racial equity. The CSWA is also a source for support and guidance.

But what more can be done? One might imagine establishing more substantial career consequences for people who commit repeated sexual harassment. For example, an established record of abusive behavior should result in the abuser being ineligible to serve, at least for some substantial period of time, as an advisor or mentor to students, postdoctoral fellows, and junior faculty. On a broader stage, such behavior could be grounds to trigger a period of ineligibility to be considered for prestigious awards. But in practice this latter action would be difficult, if not impossible, to implement. More practical approaches are needed.

I feel the long-term solution is for faculty and researchers within individual departments and institutions to actively

work to suppress harmful gender-based behaviors. Ideally, the department chair or facility director is an advocate of gender and racial equity. In these cases, it is easier to make progress and realize change since support from the top is secured. But there are instances where that is not the case. In these cases, it then falls upon members of the department to seek outside intervention, even if it is just a few brave members of the department. One action is to contact your university or institutional visiting or oversight committee and request a systemic review of internal department practices, including interviews with past members of the department or institution. Such investigations are time consuming. But given the potential to improve the work environment for all and eliminate abusive behavior, the investment of time is well worth it. Ultimately, every member of a research organization must adopt zero tolerance for sexual abuse. Zero tolerance by itself won't eliminate sexual abuse but it will allow victims of abuse to access the needed support quickly and without fear of long-term career impact. This would be the best outcome for our community and for the advancement of astronomy.

---

## News from the Dynamical Astronomy Division

Alice Monet, Division Secretary

### DDA 2012 Meeting – 6-10 May 2012, Timberline Lodge, Mount Hood, Oregon

The 43<sup>rd</sup> meeting of the AAS-DDA will be held 6-10 May 2012 at Mount Hood, Oregon, in the historic Timberline Lodge. The LOC Chair will be Al Harris, who hosted the 2002 DDA meeting at this same venue. It was a great location and meeting last time, and will be great this time too! Please reserve these dates on your calendar and check the DDA website at <http://dda.harvard.edu/> for updates. The call for abstracts and other meeting details are usually posted in early January and will be announced via electronic newsletter. Please note that this meeting venue is a change from previously announced plans for the 2012 meeting due to a schedule conflict that arose with the LOC chair at our previous location.

### Student Stipend Awards

Each year the DDA sponsors several students to attend the yearly meeting and give talks about their research. Winners of the competitive awards are provided monetary support for travel and have their registration and banquet fees waived. This year the venue will be the historic Timberline Lodge at beautiful Mount Hood, Oregon!

The competition is open to all students currently enrolled in an academic program at any college or university and doing research in the area of dynamical astronomy. Such research areas include, but are not limited to:

- the dynamics of planetary systems
- star and planet formation
- star cluster dynamics

## DDA continued

- hydro- and plasma dynamics
- galactic and extragalactic dynamics
- cosmology
- coordinate systems
- astrometry.

Applications are usually due in February, a few weeks before the nominal DDA abstract due date. More information will be posted on the DDA's website at <http://dda.harvard.edu/> as it becomes available, and will be announced via electronic newsletters. The Chair of the Student Stipend Committee is Dimitri Veras.

### Request for Nominations for the DDA/AAS Brouwer Award

Nominations are invited for the 2011-12 Dirk Brouwer Award of the Division on Dynamical Astronomy. Each year since 1976 the DDA has honored the achievements of a major contributor to the field of dynamical astronomy, recognizing the awardee with an honorarium, a certificate, and presentation of an award lecture. Recent recipients include Andrea Milani, Victor Brumberg, Simon White, Jacques Laskar, James Williams, and Tim de Zeeuw.

The Brouwer Award was established to recognize outstanding contributions to the field of Dynamical Astronomy, including celestial mechanics, astrometry, geophysics, stellar systems, galactic and extra galactic dynamics. The Selection Committee seeks a wide range of award candidates differing in age, gender, nationality, occupation, field of interest, and scientific and technical contributions. The main criteria, which are not necessarily weighted equally, are (a) excellence in scientific research; (b) impact and influence in the field; (c) excellence in teaching and training of students; (d) outstanding advancement and other support of the field through administration, public service or engineering achievement.

To be considered, a complete nomination should be delivered to the Committee Chair, Tom Statler ([tstatler@nsf.gov](mailto:tstatler@nsf.gov)) by 31 December 2011. A candidate's documentation must include a letter of nomination by a member of the AAS or DDA, the curriculum vitae, a list of publications of the nominee, and at least three letters of recommendation, by experts in the field of the nominee, attesting to the long term impact and influence of the nominee's various contributions.

If you have questions about the nomination process, or if you simply want to suggest a name, please contact the Selection Committee well before the 31 December 2011 deadline. To find information on nominating someone visit the DDA website at <http://dda.harvard.edu/> and click on the "Brouwer Award" link on the left of the page.

### Special DDA Session at Austin AAS Meeting

There will be a special session at the AAS 2012 Meeting in Austin, TX consisting of invited speakers from the DDA's 42nd meeting in 2011 (also held in Austin!). This session is designed to represent a broad swath of current research topics in the field of Dynamical Astronomy and will showcase some of the exciting research occurring in our field.

The session is entitled: Cutting-Edge Dynamics: From Planetary Rings to Galaxies

The session date is Monday, 9 January 2012, from 2:00-3:30 PM.

Invited speakers and topics include:

Phil Nicholson (Cornell): Ring dynamics at Saturn: Resonances, Density waves, Warps & Orbital migration

Steven Chesley (JPL): Asteroid Impact Hazard Assessment Over Long Time Intervals

Katherine Kretke (Southwest Research Institute): Constraining the Size of the Protosolar Nebula

John Ries (University of Texas-Austin): Confirming the Lense-Thirring "Frame Dragging" Effect with Satellite Laser Ranging and GRACE Gravity Models

Jerry Sellwood (Rutgers University): New Developments in Spiral Structure Theory

We hope to see you there!

# Mansions, Yachts, and Pulsars: HEAD Goes to Newport

Newport, Rhode Island, is known for seaside mansions, fast yachts, and historic lighthouses. From 7-10 September, though, the lighthouses spoken of most frequently in the picturesque town were the celestial kind, i.e., pulsars, as the AAS High Energy Astrophysics Division (HEAD) convened at the Newport Marriott. More than 330 participants—fully one-third of HEAD's members—enjoyed four days of talks, posters, socializing, and sightseeing. Pulsars shared the spotlight with gamma-ray bursts, supernovae, black holes of all sizes, relativistic particles, and other energetic phenomena. Some speakers presented new data from space- or ground-based telescopes, others described new instruments or analytical techniques for probing the high-energy universe, and still others advanced new hypotheses to account for the production of all those X-rays and gamma-rays inundating our detectors. The photos on these pages capture just a few of the many highlights of the HEAD meeting.

*Rick Fienberg, AAS Press Officer and Education & Outreach Coordinator*



**Left:** Attendees gathered for the HEAD banquet at turn-of-the-20th-century Rosecliff Mansion, where *The Great Gatsby*, *True Lies*, and several other movies have been filmed. The feast was preceded by cocktails and hors d' oeuvres on the patio. **Right:** The banquet featured a sumptuous meal with a choice of entrees and plenty of wine, a spectacular setting, and live music from a superb trio.



**Left:** Former HEAD Secretary-Treasurer Hale Bradt (MIT, center) and Keith Arnaud (UMaryland/GSFC) assisted current HEAD Secretary-Treasurer Ann Hornschemeier (NASA/GSFC) with a drawing for door prizes at the banquet. **Right:** HEAD Vice Chair Joel Bregman (Univ. of Michigan, left) presented Dennis Overbye (*New York Times*) with the David N. Schramm Award for High Energy Astrophysics Science Journalism. Overbye was cited for his profile of Sam Ting, principal investigator of the Alpha Magnetic Spectrometer now in operation aboard the International Space Station.



All the past and present HEAD officers in attendance joined current chair Chryssa Kouveliotou (NASA/MSFC) in thanking John Vallerga (Eureka Scientific), Ruth Paglierani (UC Berkeley), and Trish Dobson (Eureka Scientific) for many years of service in organizing HEAD meetings. The 2011 conference was Eureka's swan song; the next HEAD meeting will be put on by the AAS's own meetings department.



**Left:** With views like this out many of the conference hotel's windows, it was hard to forget you were in one of New England's most picturesque seaside towns. **Right:** The 2011 HEAD Dissertation Prize went to Jeanette Gladstone (center, Univ. of Alberta) for her thesis entitled "Optical & X-ray Studies of Ultraluminous X-ray Sources," work she did at Durham University, U.K. Gladstone received her prize from HEAD Chair Chryssa Kouveliotou (right, NASA/MSFC) and Secretary-Treasurer Ann Hornschemeier (NASA/GSFC).



**Left:** All oral presentations were given in plenary sessions, so the sole lecture hall was usually packed with attendees, as during a talk on Fermi LAT observations of millisecond pulsars by Tyrel Johnson (NRL). **Right:** Dong-Woo Kim (CfA) fields a question from an audience member after presenting new Chandra results on early-type galaxies. Session chair Randall K. Smith (SAO) looks on.

# News from the Historical Astronomy Division

Thomas Hockey and Sara J. Schechner

## Woodruff T. Sullivan, III Awarded the 2012 LeRoy E. Doggett Prize



The Historical Astronomy Division of the American Astronomical Society is pleased to announce that Woodruff T. Sullivan, III will be the eighth recipient of the LeRoy E. Doggett Prize for Historical Astronomy. The Prize is awarded biennially to an individual whose long-term efforts and

lifetime achievements have had significant impact on the field of the history of astronomy. The 2012 LeRoy E. Doggett Prize is presented to Professor Sullivan in recognition of his research, writing, teaching, and leadership in the history of astronomy community.

Woody Sullivan's passion has been the history of radio astronomy, which he has pursued for nearly 40 years. His first book was a compilation of *Classics in Radio Astronomy* (1982), which brought together seminal papers published between 1896 and 1954 with commentary. This was followed by *The Early Years of Radio Astronomy* (1984), a collection of essays, and most recently, *Cosmic Noise: A History of Early Radio Astronomy* (2009), a detailed and magisterial study of the subject from an intellectual, technical, and social point of view through the 1950s.

In preparation of these works, Woody interviewed some 250 early radio astronomers and gathered original documents, creating an archive for use by future historians. Tapes and transcripts of the interviews already have been transferred to the National Radio Astronomy Observatory in Charlottesville, which has agreed to digitize them and preserve them along with Woody's other materials. He also has been active in promoting the preservation of important personal papers of radio astronomers—including Martin Ryle, Edward Appleton, Frank Kerr, and the CSIRO Radiophysics Division in Sydney—as well as the historical radio receivers and antennas used by radio astronomers. He has coordinated these efforts through AAS and IAU Working Groups.

Woody's efforts to share, not only the products of his historical research, but also the primary sources themselves, is but one important, multifaceted, and compounded example of his service to the history-of-astronomy community.

Woody was a founding member and organizer of HAD, circa 1980, a HAD Committee member (1989-1991), and Vice Chair and Chair of the Division (1993-1997). He has organized ten special HAD meeting sessions over the years and delivered numerous papers.

Woody served on the organizing committee of IAU Commission 41 (circa 1986-1993), too. Since then he has organized about five special C41 sessions.

A longtime member of the Astronomical Society of the Pacific's History Committee, Woody chaired it in 1986-1992. He was instrumental in organizing the ASP Centennial program in 1989.

A prominent member and local organizer of two annual meetings for the North American Sundial Society, Woody's historical and astronomical perspectives have informed his talks and public sundial installations, including his leadership in the design and fabrication of the NASA Mars Rover sundial (with Bill Nye).

Lastly, Woody's historical knowledge is incorporated into his college and graduate courses in astronomy and astrobiology and into the textbook he recently edited, *Planets and Life: The Emerging Science of Astrobiology* (2007), which integrates historical, philosophical, and ethical issues with scientific matters. For the History Department at the University of Washington, he offers a course on "The History of Physics and Astronomy, 1800-1940." Through such pedagogy, Woody Sullivan has introduced the history of astronomy to many students and made vital space for the subject within the curriculum.



# Announcements

## Nancy Grace Roman Technology Fellowship

NASA has established an astrophysics technology fellowship named for one of the key contributors in the creation of the Hubble Space Telescope. The goals of the Nancy Grace Roman Technology Fellowship in Astrophysics program are to give early career researchers the opportunity to develop the skills necessary to lead astrophysics flight instruments/projects and become principal investigators (PIs) of future astrophysics missions; to develop innovative technologies that have the potential to enable major scientific breakthroughs; and to foster new talent by putting early-career instrument builders on a trajectory towards long-term positions.

See <http://science.nasa.gov/researchers/sara/student-programs/nancy-grace-roman-technology-fellowships-astrophysics-early-career-researchers/> for further information.

## ASP Nominations for 2012 Awards

The Astronomical Society of the Pacific (ASP) is now accepting nominations for the Society's 2012 awards honoring excellence in astronomy research, technology, education, and public outreach. Recipients receive a cash award and engraved plaque, as well as travel and lodging to accept the award at the Society's 124<sup>th</sup> annual meeting. The awards for which nominations are invited are as follows:

- The Maria and Eric Muhlmann Award
- The Robert J. Trumpler Award
- The Klumpke-Roberts Award
- The Richard A. Emmons Award
- The Thomas J. Brennan Award
- The Amateur Achievement Award
- The Las Cumbres Amateur Outreach Award

The nominations deadline for the Muhlmann and Trumpler Awards is 1 January 2012. The nominations deadline for the others is 15 December 2011. Submission guidelines, lists of past recipients and additional information can be found at <http://www.astrosociety.org/membership/awards/awards.html>.

## US Physics Team

The traveling members of the US Physics team competed with 393 of the most talented young physicists on the global stage, representing 84 countries, during the 42<sup>nd</sup> International Physics Olympiad and they brought home two gold and three silver medals. The Olympiad, held in July, was sponsored by the Promotion

of Academic Olympiads and Development of Science Education Foundation (POSN), under the patronage of Her Royal Highness Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra, and Chulalongkorn University (CU), in Bangkok, Thailand.

The gold medalists are Brian Zhang, a senior at Henry M. Gunn High School in Palo Alto, CA, and Ante Qu, a senior at West Windsor-Plainsboro High School South, Princeton Junction, NJ. Brian scored 8<sup>th</sup> highest overall in the competition. The silver medalists are Lucy Chen, a senior at Ames High School, Ames, IA, Andrew Das Sarma, a senior at Montgomery Blair High School in Silver Spring, MD, and Eric Speiglan, a junior from Naperville North High School in Naperville, IL. Andrew's score ranked him as the second highest silver medalist.

The U.S. Physics Olympiad Program was started in 1986 by AAPT to promote and demonstrate academic excellence. It continues to be supported as a joint initiative between AAPT, AIP, and the member societies of the American Institute for Physics: Acoustical Society of America, American Association of Physicists in Medicine, American Astronomical Society, American Crystallographic Society, American Geophysical Union, American Physical Society, AVS, Optical Society America, and The Society of Rheology.

<http://www.aapt.org/physicsteam/2011/2011-US-Physics-Team-Scores-Two-Gold-and-3-Silver-Medals.cfm>

## "Descubrimientos en Ciencias Planetarias": Classroom PowerPoints Available in Spanish

The Division for Planetary Sciences of the American Astronomical Society announces the release of "Descubrimientos en Ciencias Planetarias," the Spanish translation of the "DPS Discoveries" Classroom Powerpoints. We are grateful to Pedro Sada, Universidad de Monterrey, Mexico for his efforts. The most recent release in both languages is "A Planet Orbiting Two Suns" about the recently discovered planet nicknamed "Tatooine."

These classroom slidesets are succinct summaries of discoveries too recent to appear in "Intro Astronomy" college textbooks; each set consists of just three slides to be shown: the discovery itself, a basic explanation based on good planetary science, and the "big picture" context. Another page for further information is provided as well. Powerpoints and pdf's can be downloaded from <http://dps.aas.org/education/dpsdisc> which has links to the Spanish and English versions.

For more information, contact Nick Schneider and Dave Brain at [dpsdisc@aas.org](mailto:dpsdisc@aas.org)

# Agency News

## News from the Astronomical Society of the Pacific (ASP)

James Manning, Executive Director

### Festival

*"Quite a festival they had. What do you make of all this?"*

*Captain James T. Kirk  
The Return of the Archons*

Remember that *Star Trek Original Series* episode in which Kirk and Company found a civilization telepathically in thrall to a computer? It rigidly kept everyone to a la-la-land status quo, but periodically imposed a steam-releasing exercise called "Festival." At the stroke of six (the planet adhering to the same time system as Earth), the people began a night of saucy mayhem that ended right on schedule at six the next morning. Of course, the doughty Captain Kirk put an end to *that* by persuading the computer to self-destruct, freeing the population to a status quo existence of another sort. (After all, what point that pesky "Prime Directive" if not to be violated at every turn?)

In the *Star Trek* universe, Festival was used as a mechanism for an imprisoned people to cut loose a little. In a somewhat similar if less scandalous vein, today's *science* festivals, popping up these days all over the U.S. and the world, are designed to let people cut loose a little about science, with those of us who practice that particular vocation crafting all sorts of fun, friendly ways to introduce people to and excite them about the practice and process of understanding our world.

The U.S. has been a bit of a latecomer to the phenomenon, such festivals having been staged in other countries for some years. But that is rapidly changing. There is now a wiki, and a Science Festival Alliance ([sciencefestivals.org](http://sciencefestivals.org)) that provides calendars and locations of a wide variety of events. The World Science Festival in New York ([worldsciencefestival.com](http://worldsciencefestival.com)) founded by Brian Greene and Tracy Day has been running for several years. (Next year's runs 30 May through 3 June.) The San Diego Festival of Science and Engineering is one of many growing regional festivals (held 17-24 March in 2012). The U.S. National Science and Engineering Festival, first put on in 2010 in Washington D.C., will repeat in 2012 with a finale expo on 27-29 April.

And for the first time, the San Francisco Bay Area will feature the Bay Area Science Festival ([www.bayareascience.org](http://www.bayareascience.org)) 29 October through 6 November of this year. The ASP is a partner in the affair along with a host of Bay Area universities, science museums, science organizations and corporations. The ten-day schedule is crammed with assorted science talks and events at facilities around the Bay, culminating in a 6 November "Discovery Days at ATT Park" that will turn the home of the San Francisco Giants into a carnival of science exhibits, shows, activities and other bits of science mayhem. The ASP will have a booth there, and is also marshalling its networks to provide talks at local libraries and to sponsor star parties around the Bay.

In the paraphrased words of Captain Kirk, what are we to make of all this? The Bay Area Science Festival's goal is to "raise awareness and engage our residents in the amazing science of the region." Other festivals have similar objectives. Personally, I see it as a way for us to cut loose a little about science.

If science is fun, let us let everyone in on it—and such festivals are a way to do so. Do you reside near one? Check the science festival alliance web site or other online sources and find out. And if you're not already, find out how you can participate. It is important for scientists to show up as passionate advocates, role models, and demonstrators of science to the public, to students, to teachers, to politicians, to everyone.

At an 16 August press conference in San Francisco, Congresswoman and House Minority Leader Nancy Pelosi, whose district encompasses much of the city, offered this about the upcoming festival: "The way to a stronger economy and a better nation is this: we need science, science, science, science." If every politician said so, and every adult thought so—not just in the U.S., but around the world, would we not all be on a stronger path to the future?

So let us all do our part. And if, at the end of the day, people head home saying, as Captain Kirk did, "Quite a festival they had," it will be a first step toward that stronger, more scientific future. Party on!

## News from NSF Division of Astronomical Sciences (AST)

Jim Ulvestad, Division Director, [julvesta@nsf.gov](mailto:julvesta@nsf.gov)

### AST Portfolio Review

The AST Portfolio Review Committee is fully populated, and their first face-to-face meeting most likely will take place before the issuance of this newsletter. We also expect that the invitation for community input to the portfolio review will go public at approximately the time this newsletter is issued. Any input to the committee should be directed to the portfolio review mailbox; committee members have been instructed to forward any input they receive directly to that mailbox, and not to engage in individual dialogs with community members. For further information on the portfolio review, please see [http://www.nsf.gov/mps/ast/ast\\_portfolio\\_review.jsp](http://www.nsf.gov/mps/ast/ast_portfolio_review.jsp).

### No New Mid-Scale Programs in FY 2012

Although there is not yet an FY 2012 budget for the U.S. Government or the National Science Foundation, both House and Senate appropriators have reported out bills that keep the NSF budget flat or slightly reduced relative to FY 2011, in contrast to the large increase contained in the President's FY 2012 budget request. Given our other commitments, we will not be able to fund any new mid-scale programs from unsolicited proposals to AST in FY 2012, and will not be starting a competed Mid-scale Innovations Program in FY 2012. The possibility of funding new mid-scale programs in FY 2013 will be determined at a later date.

### New AST Staff Members

We welcome two new AST staff members who arrived this summer. Dr. Eric Bloemhof came to us from the Jet Propulsion Laboratory in July, bringing expertise in the development and management of astronomical instrumentation at optical, infrared, and radio wavelengths. Dr. Bloemhof will be working on our instrumentation programs and facilities management. Dr. Christer Watson arrived in September as a Policy Fellow from the American Association for the Advancement of Science (AAAS). Dr. Watson is on sabbatical leave from Manchester College in Indiana; his research focuses on massive star-forming regions in the Milky Way. Dr. Watson will be spending much of his time acting as Executive Secretary to the Portfolio Review, coordinating their work and gathering/organizing input material from the community and from within AST.

### ALMA Early Science

After nine years of construction, ALMA accomplished a major milestone near the end of September with the first community science observations. These observations were made with a subset of the full array as part of the "Early Science" Cycle 0 which saw over 900 proposals from the international community. Further details and sample Science Verification data can be found in the NRAO Early Science press release at <http://www.nrao.edu/pr/2011/almaearlysci/index.shtml>.

### Call for Proposal Reviewers/Panelists

Proposal review does not function without reviewers. Please consider saying "yes" when we ask you for your expertise for a review panel! We know that everyone is busy and that doing reviews takes time. But you may also learn something about proposal writing and the review process. We also encourage volunteers to contact us directly; please contact the program officer listed on the program website you are interested in, or the coordinator for our Individual Investigator Program, Katharina Lodders ([klodders@nsf.gov](mailto:klodders@nsf.gov)). Why volunteer? Please see: <http://www.nsf.gov/bfa/dias/policy/meritreview/reviewer.jsp>.

### 2011 NSF Astronomy and Astrophysics Postdoctoral Fellows

The Astronomy and Astrophysics Postdoctoral Fellowship (AAPF) awards for 2011 have been made, and most of the new AAPF awardees began their terms in the last few months. Congratulations to the awardees for 2011. The awardees, together with their proposal titles and host institutions, are listed below:

- Julia Comerford, "A Systematic Survey of Dual Supermassive Black Holes as a Signpost for Galaxy Evolution," University of Texas at Austin
- Sarah Horst, "The Molecules of Life: Incorporation of Oxygen into Planetary Atmospheric Hazes," University of Colorado
- Regina Jorgenson, "Probing the Gas that Fuels Star Formation in Typical High Redshift Galaxies," University of Hawaii

*continued next page*

- Jessica Lu, “Star Formation in the Extreme Environments of Milky Way Massive Star Clusters,” University of Hawaii
- Brian Morsony, “Simulations of AGN in Galaxy Clusters,” University of Wisconsin
- Jason Nordhaus, “The Extraordinary Deaths of Ordinary Stars: 3D Simulations of Common Envelope Phases,” Rochester Institute of Technology
- Britt Reichborn-Kjennerud, “Probing the Early Universe with Cosmic Microwave Background Polarization Anisotropies and Bringing our Research Into New York City Classrooms,” Columbia University
- Neelima Sehgal, “Measuring the Growth of Structure with Millimeter-Wavelength Surveys,” Princeton University
- Jonelle Walsh, “Measurements of High-Mass Black Holes Through Stellar and Gas Dynamical Modeling,” University of Texas at Austin

---

## Honored Elsewhere

### Sargent Appointed to National Science Board by President Obama

President Barack Obama nominated Anneila I. Sargent (former AAS President) to the key Administration post—Member, National Science Board, National Science Foundation. Sargent is Vice President for Student Affairs and the Benjamin M. Rosen Professor of Astronomy at the California Institute of Technology. An accomplished astronomer, Sargent has served as Chair of NASA’s Space Science Advisory Committee and Chair of the National Research Council’s Board of Physics and Astronomy. She was also a Member of the National Science Foundation’s Mathematical and Physical Sciences Advisory Committee. She led two large research operations as Director of the Combined Array for Research in Millimeter-wave Astronomy and the Owens Valley Radio Observatory. She was awarded the NASA Public Service Medal in 1998, and is a Fellow of the American Academy for Arts and Sciences.

### AAS Members Win Enrico Fermi Prize

The prestigious Enrico Fermi Prize has been awarded to members Enrico Costa and Filippo Frontera “for the discovery of the X-ray afterglow of Gamma-Ray Bursts with the BeppoSAX satellite.” The Italian Physical Society awards the prize yearly.

### Sunyaev Among 2011 Kyoto Prize Laureates

The non-profit Inamori Foundation (President: Dr. Kazuo Inamori) announced that Rashid Sunyaev will receive its 27th annual Kyoto Prize in Basic Sciences, which

focuses on Earth and Planetary Sciences, Astronomy and Astrophysics for 2011. Sunyaev, currently working with the Max Planck Institute and Russian Academy of Sciences, will receive the \$625,000 prize in November in Kyoto, Japan.

Sunyaev, 68, a citizen of both Russia and Germany, will receive the award for developing the theory that fluctuations in cosmic microwave background radiation can be used as a means of exploring the expanding universe, and for his outstanding contributions to the field of high-energy astronomy.

### AAS Members Win Nobel Prize in Physics

The Royal Swedish Academy of Sciences awarded the Nobel Prize in Physics for 2011 with one half to Saul Perlmutter (Lawrence Berkeley National Laboratory and University of California), and the other half jointly to Brian P. Schmidt (Australian National University) and, Adam G. Riess (Johns Hopkins University and Space Telescope Science Institute) “for the discovery of the accelerating expansion of the Universe through observations of distant supernovae.”

### Silk Wins Balzan Prize

AAS Member and astrophysicist Joseph Silk is among this year’s winners of the prestigious Italian-Swiss Balzan Prize. The award is valued at 750,000 Swiss Francs (approx. \$950,000); half of this amount must be designated by the winner to research work, preferably involving young scholars. Silk, of the Johns Hopkins University in Baltimore, Maryland (USA), and Oxford University (UK), is cited for his work on the early universe, from the Planck time to the first galaxies.

## Honored Elsewhere continued

The International Balzan Foundation, founded in 1957, operates through two separate institutions. The International Balzan Foundation “Prize” (chaired in Milan by Ambassador Bruno Bottai) selects the subjects to be awarded and the candidates through its General Prize Committee. The Balzan Foundation “Fund” (chaired in Zurich by Achille Casanova) administers the estate left by Eugenio Balzan.

### **Mather Awarded 2011 Chalonge Medal**

The International Astrophysics School Daniel Chalonge has awarded the Daniel Chalonge Medal 2011 to John C. Mather, Nobel Laureate 2006 for the outstanding results of the COBE satellite, and present Senior Project Scientist for the James Webb Space Telescope, Mather is a Senior Astrophysicist in the Observational Cosmology Laboratory at the NASA Goddard Space Flight Center (College Park, Maryland, USA).

The medal was awarded for his huge contribution to modern cosmology, in particular for his outstanding effort in promoting and leading key missions for the study of the Universe, as the COBE satellite and now the JWST, deeply discussed in the frame of the Chalonge School and the training and formation of young physicists and astrophysicists. He also contributed to ground observation programs leading advisory and working groups for the National Academy of Sciences, NASA, and the NSF (for the ALMA, the Atacama Large Millimeter Array, and for the CARA, the Center for Astrophysical Research in the Antarctic). As Senior Project Scientist for the JWST, John Mather successfully leads the science team, and represents the scientific interests within the project management.

The Chalonge Medal, coined exclusively for the Chalonge School by the prestigious Hotel de la Monnaie de Paris (the French Mint), is a surprise award and only eight Chalonge medals have been awarded in the 20 year school history.

### **Presidential Early Career Award to Cirtain**

In September, the White House announced that AAS member Jonathan Cirtain, now at NASA’s Marshall Space Flight Center in Huntsville, Ala., has won a Presidential Early Career Award for Scientists and Engineers (PECASE). He was one of 94 winners this year and one of four recipients nominated by NASA.

Cirtain, who earned his doctoral degree at MSU in 2005 with thesis adviser Piet Martens, is the third current or former member of the MSU Solar Physics Group to receive the PECASE award. He is the fourth recipient associated with the MSU physics department.

The PECASE awards were established by President Clinton in 1996.

President Barack Obama said when he announced the PECASE winners that “It is inspiring to see the innovative work being done by these scientists and engineers as they ramp up their careers—careers that I know will be not only personally rewarding, but also invaluable to the nation. That so many of them are also devoting time to mentoring and other forms of community service speaks volumes about their potential for leadership, not only as scientists but as model citizens.”

Cirtain’s PECASE award recognized him for outstanding research on basic physical processes observed in solar and space plasmas through innovative engineering instrument designs.

### **Fishman Awarded 2011 Shaw Prize**

AAS member Gerald J. Fishman, an astrophysicist at NASA’s Marshall Space Flight Center in Huntsville, Ala., won the 2011 Shaw prize for his work in astronomy. Fishman received the award at a ceremony in Hong Kong this past September.

Fishman is being recognized for his leadership in research that has shed new light on the space phenomena known as gamma-ray bursts—the brightest, most explosive events known to occur in the universe. He shares the award and cash prize of \$1 million with Dr. Enrico Costa, director of research at the Institute of Space Astrophysics and Cosmic Physics in Rome, who also performs space-borne research in the study of gamma-ray bursts.

Established in 2004 by Hong Kong media entrepreneur Sir Run Run Shaw, the Shaw Prize includes annual awards for achievement in the fields of astronomy; life sciences and medicine; and mathematics. The awards recognize individuals who have achieved significant breakthroughs in science and research with a positive, lasting impact on humankind.

# Calendar of Events

## AAS & AAS Division Meetings

### 219<sup>th</sup> AAS Meeting

8-12 January 2012, Austin, TX  
<http://aas.org/meetings/aas219>

### HAD Meeting

8-10 January 2012, Austin, TX  
<http://had.aas.org/meetings/>

### 220<sup>th</sup> AAS Meeting

10-14 June 2012, Anchorage, AK  
<http://aas.org/meetings/aas220>

### 44<sup>th</sup> Annual DPS Meeting

14-19 October 2012, Reno, NV  
<http://dps.aas.org/meetings/>

## Other Events

### \*National Radio Science Meeting

4-7 January 2012, Boulder, CO  
Richard Bradley ([rbradley@nrao.edu](mailto:rbradley@nrao.edu))  
<http://www.usnc-ursi.org/>

### \*Essential Cosmology for the Next Generation 2012

16-20 January 2012, Cancun, Mexico  
Eric Linder ([bccpcoib@lbl.gov](mailto:bccpcoib@lbl.gov))  
[http://bccp.lbl.gov/beach\\_program/index2012.html](http://bccp.lbl.gov/beach_program/index2012.html)

### Portable Meter-Class Astronomy

20-22 January 2012, Waimea, HI  
Russell Genet ([RussMGenet@aol.com](mailto:RussMGenet@aol.com))  
Bruce Holenstein ([BHolenstein@gravic.com](mailto:BHolenstein@gravic.com))  
[www.AltAzInitiative.org](http://www.AltAzInitiative.org)

### The Physics of Astronomical Transients

21-27 Jan 2012, Aspen Center for Physics  
Enrico Ramirez-Ruiz ([enrico@ucolick.org](mailto:enrico@ucolick.org))  
<http://cargo.ucsc.edu/tasc/aspen/>

### Planets around Stellar Remnants

23-27 January 2012, Arecibo Observatory, Arecibo, Puerto Rico  
Alex Wolszczan ([alex@astro.psu.edu](mailto:alex@astro.psu.edu))  
<http://www.mpia-hd.mpg.de/PLANETS2012/index.html>

### Science with a Wide-field Infrared Telescope in Space

(held in tandem with the 16th International Conference on Gravitational Microlensing)  
13-15 February 2012, Pasadena, CA  
Dawn Gelino ([wfir2012@ipac.caltech.edu](mailto:wfir2012@ipac.caltech.edu))  
<http://www.ipac.caltech.edu/wfir2012/>

### First Light and Faintest Dwarfs: Extreme Probes of the Cold Dark Matter Paradigm

13-17 February 2012, KITP, UC Santa Barbara  
Julio F. Navarro ([kitpconf@kitp.ucsb.edu](mailto:kitpconf@kitp.ucsb.edu))  
<http://www.kitp.ucsb.edu/activities/dbdetails?acro=dwarfgal-c12>

### 16th International Conference on Gravitational Microlensing

(held in tandem with the Science with a Wide-field Infrared Telescope in Space)  
15-17 February 2012, Pasadena, CA  
Dawn Gelino ([wfir2012@ipac.caltech.edu](mailto:wfir2012@ipac.caltech.edu))  
<http://www.ipac.caltech.edu/wfir2012/>

### \* 2012 Next-Generation Suborbital Researchers Conference (NSRC-2012)

27-29 February 2012, Palo Alto  
<http://nsrc.swri.org/>

### Outflows, Winds and Jets: From Young Stars to Supermassive Black Holes

3-6 March 2012, Charlottesville, VA  
<https://science.nrao.edu/facilities/alma/naasc-workshops/jets2012>

### \*Turbulence in Cosmic Structure Formation

5-8 March 2012, Tempe, AZ  
Scott Smas  
([cosmicturbulence2012@gmail.com](mailto:cosmicturbulence2012@gmail.com))  
<http://cosmicturbulence2012.events.asu.edu/>

### \*A Window on the Formation of the Milky Way

20 May-10 June 2012, Aspen, CO  
<http://www.aspenphys.org/documents/program/summerworkshops2012.html>

### \*Non-gaussianity as a window to the Primordial Universe

20 May-10 June 2012, Aspen, CO  
<http://www.aspenphys.org/documents/program/summerworkshops2012.html>

### \*The Physics of Feedback Processes and their Role in Galaxy Evolution

10 June-1 July 2012, Aspen, CO  
<http://www.aspenphys.org/documents/program/summerworkshops2012.html>

### Centenary Symposium 2012: Discovery of Cosmic Rays

12-14 June 2012, Denver, CO  
Jonathan F. Ormes ([JFOrmes@comcast.net](mailto:JFOrmes@comcast.net))  
<http://portfolio.du.edu/CR2012>

### \*The Evolution of Massive Stars and Progenitors of Gamma-Ray Bursts

17 June-1 July 2012, Aspen, CO  
Emily Levesque  
([Emily.Levesque@colorado.edu](mailto:Emily.Levesque@colorado.edu))  
<http://casa.colorado.edu/~emle6425/aspen/>

### Ultraviolet Astronomy: HST and Beyond

18-21 June 2012, Koloa, HI  
James Green ([james.green@colorado.edu](mailto:james.green@colorado.edu))

### Centenary Symposium 2012: Discovery of Cosmic Rays

26-28 June 2012, Denver, CO  
Jonathan F. Ormes ([JFOrmes@comcast.net](mailto:JFOrmes@comcast.net))  
<http://portfolio.du.edu/CR2012>

North, South and Central America; 2) meetings of the IAU; and 3) meetings as requested by AAS Members. Meeting publication may only be assured by emailing [crystal@aas.org](mailto:crystal@aas.org). Meetings that fall within 30 days of publication are not listed.

A comprehensive list of world-wide astronomy meetings is maintained by Liz Bryson, Librarian C-F-H Telescope in collaboration with the Canadian Astronomy Data Centre, Victoria, BC. The list may be accessed and meeting information entered at [cadcwww.hia.nrc.ca/meetings](http://cadcwww.hia.nrc.ca/meetings).



