

# AAS Newsletter

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## President's Column

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

Seattle was the scene for a grand, fast-paced and entertaining 217<sup>th</sup> meeting, filled with exciting new results presented by our wonderful AAS members. We set a record for the West Coast and achieved the largest AAS meeting ever, outside of DC, with over 2900 participants, including over 600 junior members. As usual, the hard work of AAS Executive Officer Kevin Marvel and his staff resulted in a smooth meeting experience for us. We were captivated by plenary sessions covering the gamut from exoplanets to the

early universe. The inaugural Lancelot Berkeley prizewinners, Bill Borucki and David Koch, gave inspiring talks about the exciting Kepler results, and the first Kavli Prize lecturer, Dr. Carolyn Porco, described the Cassini mission. Our Warner prizewinner Scott Ransom expounded on exotic pulsars, while Pierce prizewinner Tommaso Treu discussed the growth of black holes and galaxy evolution, and Cannon prizewinner Anna Frebel explored the oldest known stars. Rossi prizewinners Felix Aharonian, Werner Hoffmann, and Heinz Voelk described the successful H.E.S.S. collaboration, while Heineman awardees Michael Turner and Rocky Kolb entertained us with a lively cosmology and particle astrophysics lecture.

With these prizewinners and so many other exciting talks still fresh in mind, I exhort you to nominate your colleagues for the next round of AAS prizes. Although our personal reward for research is the sheer joy of discovery, it is nice to be acknowledged for a job well done. I want to emphasize that you do not need to be at the same institution as the colleague you nominate. It is easy too: just go to the prizes section of the AAS website <http://aas.org/grants/awards.php#nominate>. The prize deadlines have shifted in the past year to 30 June, so now is the time to begin getting your letters together. Prize nominations carry over for three years, but we now require an update to resumes each year for the next committee's consideration.

Prizes can be particularly important for younger astronomers who are just getting established; the Warner and Pierce prizes are designed for them. At the [Seattle] Council meeting preceding the regular AAS meeting, Council voted to amend the application procedure for the Warner and Pierce prizes to encourage a broader representation among the nominees; with the new procedure, what's required is a CV, a publication list, and three letters of recommendation (as before), but there will not be an explicit nominator. That means self-nominations are acceptable, and will appear the same to the prize committee as nominations from others.

Consider your more senior colleagues for the Heineman and Russell prizes, even if they are not at your institution or part of your collaborations. Don't assume that someone else will think of them. Typically the Russell prize is viewed as the capstone of a long career, whereas the Heineman is for significant achievements partway through a career. We purposefully do not stipulate age limits for these awards.

The AAS Council meets the weekend before AAS meetings for planning purposes. At the Council meeting in Seattle, we ratified the Strategic Plan for the AAS (see it on the AAS website at <http://>

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## AAS Officers

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*Items of general interest* to be considered for publication in the *AAS Newsletter* should be sent to [crystal@aaas.org](mailto:crystal@aaas.org). Appropriate pictures are welcome. For information about deadlines and submitting articles, see [www.aas.org/publications/newsletter.php](http://www.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@aaas.org](mailto:crystal@aaas.org).

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

## President's Column *continued from front page*

[aas.org/about/strategic\\_plan](http://aas.org/about/strategic_plan)) and began to set up internal metrics for evaluating the success of meeting our goals. As detailed in our Mission Statement ([http://aas.org/about/mission\\_and\\_vision](http://aas.org/about/mission_and_vision)), the AAS focuses on five priorities: publications, meetings, public policy and advocacy, astronomy education, and other member services such as demographics, employment, and women and minority issues. Council also began to formulate plans of action in many areas, which we will roll out in the months ahead. Rick Fienberg, as Education and Outreach Coordinator, is working on revising the Shapley program to help target under-represented minority schools. He will also begin to develop, with advice from the Astronomy Education Board, an "Astronomy Ambassadors" program aimed at educational outreach by undergraduate and graduate students in connection with local schools. Look for announcements about these programs in the coming year.

In Seattle, psychologist Abby Stewart gave a thoughtful and provocative plenary session on unconscious bias, and Sheryl Bruff and Bernice Durand held a special session on addressing harassment. I thank the Committee on the Status of Women and the Committee on the Status of Minorities for instigating these important sessions, and implore us all to carry their messages back to our departments. Website links to some material from these talks can be found on the CSWA website and at <http://www.portal.advance.vt.edu/index.php/categories/diversity/bias>.

The Decadal Town Hall in Seattle marked the conclusion of the official roll-out of the Astro2010 Decadal Survey "New Worlds, New Horizons" and the transition of the recommendations to ownership by the astronomical community. At that session, the AAS was pleased to acknowledge the outstanding work of the Decadal Committee and panels and study groups, and to honor Astro2010 Chair Roger Blandford, Astro2010 Executive Officer Lynne Hillenbrand, and Astro2010 Study Director Michael Moloney with special certificates of appreciation. The audience discussion there was lively and useful. If you didn't get a paper copy of the NWNH report and would like one, you can request it from the National Academies website. Also listed there is a December report "Implementation Recommendations from New Worlds New Horizons Decadal Survey," based on a panel formed from the National Academies' Board of Physics and Astronomy and Space Studies Board to address the proposed WFIRST and NASA's astrophysics program in the context of a changing budget and the ESA Euclid mission: [http://sites.nationalacademies.org/BPA/BPA\\_059108](http://sites.nationalacademies.org/BPA/BPA_059108).

Several other Town Halls in Seattle, following the welcome address on JWST by Dr. John Mather, 2006 Nobel Physics Laureate, were also meant to enable discussions on upcoming science planning by the agencies and by our community. I have no doubt that the minimal number of questions asked at some of these Town Halls was not a reflection of apathy on the part of the community, nor acceptance that plans are all securely in place, but, rather, stemmed from a feeling of overwhelming uncertainty about the immediate and longer-term directions for astronomy on a national level, which should become a bit more clear when the Federal budget is announced in mid-February.

Here's where the AAS membership comes in: it is very important for us to show strength in numbers to promote the idea that basic astronomy research is good for the country, and to reinforce the importance of the Decadal survey. Our Committee on Astronomy and Public Policy (CAPP), chaired by Jack Burns, met with agency leaders to discuss the state of astronomy and what AAS could do to further astronomy on a national level. Of course Roger Blandford has been busy all fall with Congressional and agency meetings to discuss the Decadal recommendations. Executive Officer Kevin Marvel, along with Bahcall Fellow Bethany Johns, U. Colorado, will have numerous meetings this spring to discuss astronomy priorities and

to reiterate the need for science education and research funding via the America COMPETES Act. Congressional Visits Day in April has a full complement of junior and senior astronomers slated to meet with Congressional staffers. At appropriate times, the AAS issues action alert emails imploring AAS members to write to their Congressmen requesting support

for astronomy. Please stay tuned for these and send messages to your representatives to let them know your concerns. It is easy to do: email contact lists are available at <http://aas.org/policy/contact.php>. It should be an interesting spring, so stay informed and get involved. Our astronomical future is at stake.



## From the Executive Office

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

The Seattle meeting was full of energy and great presentations and boasted a record-setting attendance for a non-DC meeting of 2959 people. The inaugural Lancelot M. Berkeley New York Community Trust prize talk was given along with the inaugural Kavli lecture. These new talks

allow us to feature recent and prominent scientific results at our conferences and thanks go to both organizations, the Kavli Foundation and the New York Community Trust for working with us to set up these long-term components of our meetings. Audio and slide casting of all plenary talks are available to AAS members as a member benefit until the next meeting concludes (when they are publicly available to all). Login to the AAS member pages to check them out.

After each meeting the AAS helps organize, we undertake a lessons-learned session, which is usually a half-day or day-long meeting of all staff who attended the meeting to go through what worked, what didn't, what could be improved and reviewing all comments we received. We strive to improve with each meeting and to learn from our mistakes, no matter how small, so that future meetings can be improved.

An ongoing challenge for the AAS has been the meeting banquet and nothing garners as many strong comments as this event, mainly due to the cost and what is ultimately delivered for that cost. Even before I started working for the AAS I was struck by the inconsistency of the banquet at each meeting, sometimes great, sometimes lame. Why have a banquet at all? Well, we use the banquet venue to make award presentations and to announce new prize winners or honorees. It has also been tradition to include some form of entertainment, which has varied from saloon dancing hall re-enactors (banquet at Old Tucson in 1995), to bluegrass musicians (Nashville 2003) to the venerable Capitol Steps at our DC meetings.

Because of the expense of serving several hundred attendees, covering any additional venue expenses and paying for entertainment, the banquet ticket can appear high: sixty-five to seventy-five dollars is not uncommon. It may come as a shock that this rarely covers the full cost. Buffet style food is cheaper, but harder to set up logistically and can be disappointing to attendees. Entertainment can be hit-or-miss, I have been struck by how many people exit early once the entertainment begins, whether a horn quintet, an actor presenting "Gone with the Wind" in 30 minutes or even a scientific speaker.

For those members who attended the banquet in Seattle, we know it was not among our best. The concept of food stations and smaller portions of a wider variety of food, which worked so well in the large venue of the Air and Space Museum at the 2010 meeting in DC, did not work as envisioned in the smaller space at the Hyatt in Seattle. Inadequate seating further muddled the evening, though rectified quickly by the hotel staff. An overly enthusiastic jazz band added too much noise to an event that most value for the dinner table conversations that take place. Thankfully, most everyone enjoyed the interesting science talk on long-period earthquakes and the geologic history of the pacific northwest.

As always, we will work with your elected leaders to find an effective, affordable way to honorably recognize our prize winners and provide a social forum for positive interactions in the future. It may be something that looks more like the opening reception, which would draw more attendees, or be strictly a formal prize ceremony, as other societies (AGU) have at their meetings. Although it would seem that an informal event might save on the cost side, that is rarely true as the bulk of the cost is wrapped up with the staff necessary to provide service and the logistical needs of serving several hundred people anything, whether it is hamburgers or steak.

Bear with us as we strive to make this important winter-meeting event more enjoyable and more affordable. As always, I welcome any and all member comments ([marvel@aas.org](mailto:marvel@aas.org)).

# Journals Update

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

## Planning and Watching

Many people are involved in the publication of our journals. The most important contributors are the authors and the referees—we must have good content that is carefully reviewed, or else there is nothing for us to publish. The work to get high-quality articles into the journals is carried out by editors and the editorial management staff, by copy editors and production editors, and by production staff who convert, mark up, resize, and otherwise transform the digital materials. They are all supported and complemented by programmers who write and maintain software for manuscript management, for production workflow management, for digital asset management, for online delivery and syndication, and so on. There are web designers, library sales representatives, financial management staff, systems administrators, help-desk personnel, legal counselors, software R&D dudes, and, yes even a printer. (For the *AJ* and the *ApJ*, it is a *big* printer, with a big plant in Pennsylvania.) Like grand opera, there are many hands behind the scenes.

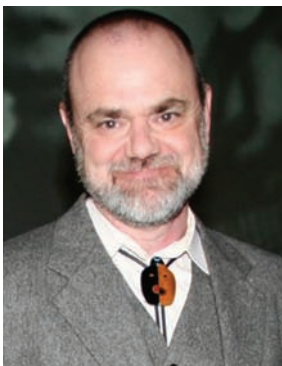
Senior staff from the editorial offices, the publishers, and the AAS, all meet at various times during the year. Those of us who were in Seattle at the 217<sup>th</sup> Meeting of the AAS got together several times to review our operations and concerns, and to talk about the issues and opportunities that we see ahead of us in the future. In the near future, we are looking forward to making it possible for readers to create a Powerpoint object for each figure in the journals. We are considering or pursuing enhancements to the online article

presentation, enhancements such as improving the semantic linkages for celestial object names, or providing video abstracts and non-specialist abstracts. Some time in the first half of 2011, we expect to make high-quality PDF files available to *all* authors, so that people can make their own reprints. We are also supporting a project called ORCID whose mission is to solve the author (contributor) name ambiguity problem in scholarly communications. Of course we are continuing to try and make more data available directly from journal articles.

The AAS journals are ready to accept more of the data that underlie the *figures* that appear in the journals. See my column in the July 2010 *AAS Newsletter*, or ask one of the editors about the suitability of the figure(s) in your next paper. We are hardly alone in our desire to improve access to research data. There has been a remarkable surge of interest in the challenges associated with managing large amounts of digital data. Recently, there has been a number of reports and studies by the US National Academies, the US National Science Board, the European Union, et al., as well as editorials in *Science and Nature*, all expressing broad concerns about digital data. The NSF recently funded two large projects that will investigate a host of possibilities for better integrating and managing digital data in the daily lives of researchers. Those projects are called “DataONE” and the “Data Conservancy.” The AAS and its publishing partners are paying close attention to these projects as they develop systems and practices that could benefit our journals as we strive to improve the connections between data and the literature.

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## 25 Things About...Ethan T. Vishniac, Editor-in-Chief, *Astrophysical Journal*



1. Birthplace ... New Haven, CT
2. My favorite movie is ... Lord of the Rings
3. Motto ... Nunc videt. Nunc ne videt.
4. At work, I like to wear ... t-shirt and jeans
5. When I get home, I like to wear ... t-shirts and jeans
6. The most important thing I learned from my mother was ... When to stop arguing.
7. The most important thing I learned from my father was ... How to argue honestly.
8. My favorite time of day is ... Mid-morning, about 9am.
9. My favorite holiday is ... Halloween
10. Do you untie your shoes when you take them off ... occasionally
11. Web site I spend the most time on ... <http://apj.msubmit.net> (This is a surprise?)
12. My first real job was ... Telescope assistant.
13. The location where I do my best thinking is ... my couch
14. Were you named after anyone ... Ethan Allen and Tecumseh
15. I prefer AM or FM radio ... FM
16. I love to ... bike
17. Something that really annoys me ... white chocolate
18. One word that best describes you ... cheerful
19. I make the best ... waffles
20. My favorite city is ... Ankh-Morpork
21. My favorite actress is ... Sigourney Weaver
22. My favorite athlete is ... Really not a good question for me.
23. I used to play ... baseball (I had to really reach back for that one.)
24. Four people from history to have at a dinner party ... Michel de Montaigne, Elizabeth Cady Stanton, Voltaire, and Robert Hooke
25. I think people should ... Turn in referee reports on time.

# Secretary's Corner

G. Fritz Benedict, [aassec@as.org](mailto:aassec@as.org)

## AAS Elections

The results of the latest AAS election are presented below. The Society thanks all who agreed to stand for election, for their commitment and service to the community, and congratulates the winners. New AAS Officers and Councilors begin their terms after the Annual Business Meeting on 25 May 2011 at the Boston Meeting.

### President (June 2012-June 2014)

David J. Helfand

### Vice-President (June 2011-June 2014)

Edward B. Churchwell

### Treasurer (June 2011-June 2014)

Hervey Stockman

### Councilors (June 2011-June 2014)

Angela Speck

Bruce Balick

Eileen D. Friel

### Nominating Committee (February

2011-February 2014)

Joan T. Schmelz

Terry D. Oswalt

### Publications Board Chair (June 2011- June 2015)

Anne P. Cowley

## AAS Prizes

Your Society awards a number of prizes and grants each year. Details can be found at <http://as.org/grants>.

To address a dwindling number of nominations the Council approved a change to the ground-rules for the Warner and Pierce Prizes. A nomination package will now consist only of a CV, a publication list, and three letters of support. Self-nominations are now allowed. The committee will be blind regarding self-nominations versus outside-nominations.

The deadline for all prize nominations is 30 June 2011. Submissions are welcome either electronically ([aassec@as.org](mailto:aassec@as.org)) or by mail (G. F. Benedict, McDonald Observatory, 1 University Station, Austin, TX 78712).

## Council Actions at AAS 217

1. The minutes of the 216th meeting were approved and adopted.
2. The designation of Modera Wealth Management, LLC as the AAS investment advisor was approved and adopted.
3. The 2010 scientific journal budget was amended to include the IOP management fee of \$840,000.
4. The 2011 budget adjustments were approved and adopted.
5. The Strategic Plan proposed by the Council were approved and adopted.
6. The 2011 AAS Prize winners were ratified.
7. The appointments to the 2011 AAS Prize Committees were ratified.
8. Self-nominations in order to increase the number of applicants for the Warner and Pierce Prizes were approved and adopted, and the provision for a nomination letter as part of the nomination process removed.
9. The Council approved making Irene Hansen Osterbrock a Patron of the Society.

## Member Deaths

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

**John P. Oliver**

**Ernst Raimond**

## Letters to the Editor

Letters to the Editor on current issues of importance to astronomers are welcomed. Letters must be signed and should not exceed 250 words. Send to Jeff Linsky, Associate Editor, Letters, ([jlinsky@jila.colorado.edu](mailto:jlinsky@jila.colorado.edu); 303-492-7838 phone; or 303-492-5235 fax) one week prior to the *AAS Newsletter* deadline. Letters may be edited for clarity/length (authors will be consulted) and will be published at the discretion of the Editors.

## Opting In and Out of AAS Publications

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

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

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

# Boston Becomes the Center of Astronomical Attention 22-26 May

Rick Fienberg, AAS Press Officer and Education & Outreach Coordinator

Bostonians sometimes refer to their city as the “Hub of the Universe,” a grandiose nickname with origins in a 19th-century novel by Massachusetts-born author and philosopher Oliver Wendell Holmes. Well, during the period 22-26 May 2011, Boston really *will* be a cosmic hub when the 218th AAS meeting convenes at the Westin Copley Place hotel in the city’s fashionable Back Bay district—even more so when you consider that the American Association of Variable Star Observers (AAVSO), based across the Charles River in Cambridge (in *Sky & Telescope’s* former headquarters, no less), will be joining us in celebration of their 100th anniversary. The AAS Historical Astronomy Division (HAD) is getting into the act, too, with a special session on the history of variable-star astronomy.

A big winter AAS meeting (and January’s meeting in Seattle was *very* big; see page 10) is usually followed by a small summer one. But because we’re gathering with the AAVSO and HAD, and because the U.S. Northeast is home to the greatest concentration of members in the entire Society, this “rule” looks like it is going to be broken. Heck, between the Harvard-Smithsonian Center for Astrophysics, the Massachusetts Institute of Technology, Boston University, Boston College, Tufts University, the University of Massachusetts, the Chandra X-ray Center, the Maria Mitchell Observatory, and a handful of other institutions, we would have a big meeting in Boston even if nobody showed up from out of state!

If you can get to Boston the weekend before the main science program gets under way, you can attend your choice of hands-on workshops. As usual the Center for Astronomy Education (CAE) and the Collaboration of Astronomy Teaching Scholars (CATS) will offer their popular Astro 101 Tier I Teaching Excellence Workshop and Tier II Technology Special Topic Workshop. The National Optical Astronomy Observatory (NOAO) will add a new workshop on the Galileoscope and Dark Skies Awareness programs to build on the legacy of the International Year of Astronomy. And anyone interested in the coming era of gravitational-wave astrophysics will want to attend Neutron Stars and Gravitational Waves: The Next Steps Toward Detection.

Among the scientific highlights of the meeting will be a raft of prize and invited talks, headlined by Margaret J. Geller’s Henry Norris Russell Lecture, “Mapping the Universe with Redshift Surveys and Weak Lensing,” on Tuesday, May 24th. Our summer get-togethers also feature numerous multisession meeting-in-a-meeting programs. On tap for Boston are “mini-meets” on science with Chandra, research opportunities for undergraduates, the many questions answerable with Kepler

data, challenges in nuclear and particle astrophysics, star-formation and protoplanetary disks, how the Oort Cloud got filled and gets emptied, the solar-stellar connection, and the scientific potential of the Small and Moderate Aperture Research Telescope System (SMARTS).

Special sessions include four AAVSO or HAD sessions on variable-star astronomy, one on the Astro2010 decadal survey, others on sustainability and astronomy, mentoring and networking for women and minorities, innovations in teaching, and a Monday-afternoon remembrance of the late Harvard-Smithsonian astronomer and AAS past-president John Huchra. There will be Town Hall meetings too, where you can hear from, and provide feedback to, senior representatives from NASA, NSF, and NOAO.



Always worth attending at a summer AAS conference is the Annual Members Meeting. In Boston you will hear a report on the Society’s finances, meet the president-elect and other newly elected officers, learn about new initiatives from the AAS Council, and have a chance to raise and comment on issues of concern to you personally and to the astronomical community more generally. This is also the time and place to propose candidates for the Society’s Nominating Committee, which in turn selects candidates for election as officers

or councilors. There will be one vacancy on the Nominating Committee to be filled in 2011, and the Bylaws specify that we need at least two candidates. Please think about colleagues whose experience and judgment you value, and, after obtaining their consent, come to Boston prepared to put their names forward.

Aside from the meeting itself, there is lots to see and do in Boston and surrounding areas. The Museum of Fine arts has just been expanded, and the planetarium at the Museum of Science has just reopened after a thorough renovation and modernization. Symphony Hall is renowned worldwide for its acoustics. The region’s seafood is legendary—stop in at the oddly named but wildly popular Legal Sea Foods to sample a cup of the same “chowdah” served at the inaugurations of U.S. presidents. Walk the Freedom Trail past Paul Revere’s house, the oldest building in Boston, or head to the harbor to see the aquarium or catch a whale-watching ship. Baseball fans will surely want to visit Fenway Park, the nation’s oldest ballpark and home of the Boston Red Sox (but note that the team leaves for a road trip after the May 21st game against the Chicago Cubs).

There will be plenty of astronomical hubbub in the Hub this coming May. For more information about the 218th AAS meeting, and to register, visit our website, <http://aas.org>.

# NASA v. Nelson Decision

Kevin B. Marvel, Executive Officer

As some AAS members know, a case was brought to the Supreme Court by some AAS members who work at JPL (and others). Although the case is complex, the core issue was one of whether newly-instituted background checks were appropriate and appropriately applied to contract employees working in basic, non-defense research: specifically the kind of people who are members of the AAS and whether these checks violated a constitutional right to privacy.

The AAS leadership, after due deliberation, decided to submit a so-called Amicus Curiae brief, or friend-of-the-court brief, to inform the Court of certain details about our field relevant to the case and to suggest a tailored approach in administering background checks generally, while warning about the slippery slope of advocating background checks for anyone compensated by the government in some way, e.g. research grant recipients.

Although it is impossible to know whether the AAS brief was used by the Supreme Court in forming its final opinion, which was released on 19 January, our legal counsel is of the opinion that our input was valuable and the final opinion echoes some of the recommendations included in the AAS brief. In the decision, the court assumed, without deciding, that there is a Constitutional right to informational privacy, and found that the background checks (the actual specific questions asked) were reasonable in the specific circumstances of the case.

Although the final result was not a surprise to our legal Counsel, they feel that an interesting point in the case is that by a 6-2 vote, the Court adopted a “tailored approach,” similar to what was advocated in the AAS

brief, balancing researcher’s privacy concerns against the government’s interests in the particular circumstances.

One of the more interesting aspects of the decision is the discussion of the government’s interest with regard to contractor employees, resulting in a debate between Scalia (and Thomas) and the balance of the Court. While the Court accepted the government’s position that its interest as a proprietor and employer justified the investigations in this case, in doing so it rejected “formalities” and examined the practical realities of the particular situation. It based its decision on the fact that “the record shows that,” as a “practical matter,” there are no “relevant distinctions” between the duties performed by NASA’s civil-service workforce and its contractor workforce; the two have “functionally equivalent duties.”

The Court therefore concluded that the government has a strong interest in basic background checks on the contract employees who are “minding the store at JPL.” This is a key piece of evidence that the AAS brief contributed to the decision, as we strongly warned about the slippery slope of a broadly applicable background check policy for those receiving or being employed by the government and this decision makes the point that the specific circumstances matter and must be taken into account. It is unfortunate that the specific situation for the plaintiff’s, our members, were not supported by the Court’s decision.

The full decision may be found at [www.supremecourt.gov](http://www.supremecourt.gov) by searching for “09-530” using the Court’s search tool. You may also hear oral argument audio and review the AAS Amicus brief on the court’s website.

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## Honored Elsewhere

### Harvey Awarded 2011 Arctowski Medal

John W. Harvey, astronomer at the National Solar Observatory in Tucson, Ariz., and member of the Solar Physics Division of the AAS, is the recipient of the 2011 Arctowski Medal. Harvey is being honored for major contributions to understanding the Sun’s magnetic fields and its interior structure, and for developing the instrumentation that has made these discoveries possible.

The Arctowski Prize of the National Academy of Sciences, established through the Henryk Arctowski Fund by the bequest of Mrs. Jane Arctowska, is awarded for studies in solar physics and solar-terrestrial relationships. The award recognizes outstanding contributions to the study of solar physics and solar-terrestrial relationships and consists of a \$20,000 prize, as well as \$60,000 to an institution of the recipient’s choice.

### RAS Gold Medal Awarded to Ellis

Richard Ellis, Steele Professor of Astronomy at the California Institute of Technology has been awarded the Gold Medal of the Royal Astronomical Society for his outstanding personal research achievements and his leadership in astronomy.

As a scientific mentor, Ellis has supervised 30 PhD students; 28 are still active in academic research. He served as director of the Palomar Observatory (now Caltech Optical Observatories) from 2000 to 2005 and has played an important role in building the science case and partnership for the upcoming Thirty Meter Telescope.

# Committee on the Status of Women in Astronomy

Hannah Jang-Condell (CSWA member, University of Maryland, [hannah@astro.umd.edu](mailto:hannah@astro.umd.edu))

## CSWA Town Hall

The CSWA Town Hall at the January 2011 AAS Meeting was entitled “How Men Can Help Women in Astronomy.” The idea behind this was that we cannot expect the climate for women in astronomy to get better if we rely only on the efforts of only women themselves. Moreover, it is not simply a matter of removing the overt obstacles. Rather men and women both need to take active steps toward equity to make things happen.

The Town Hall was well attended by both men and women. Joan Schmelz, chair of the CSWA, presented ideas brainstormed by members of the CSWA as well as input from readers of the AASWOMEN email newsletter. (You can subscribe to AASWOMEN at <http://lists.aas.org/cgi-bin/mailman/listinfo/aaswlist> or read the archives at <http://aas.org/cswa/AASWOMEN.html>.) The full presentation is available at <http://aas.org/cswa/Jan11/townhall.html>, and the suggestions are listed below. The ensuing discussion was lively, engaging, and constructive.

As a background, it is important to remember that excellence is supported by gender diversity and an inclusive environment. For the women themselves, working on a level playing field means you have more energy to spend on science. As another example, once symphony orchestras instituted blind auditions, where the auditionee performed behind a screen, the representation of women in these orchestras suddenly increased. These orchestras could only have gotten better by the inclusion of these excellent women who had previously been excluded. Unfortunately, job applications by astronomers cannot be similarly blind, so we need to resort to more active methods of inclusivity.

Here are the ideas that Dr. Schmelz presented:

### Suggestions by Marc Postman and CSWA

- If a woman makes a good point during a discussion, acknowledge it! Don't wait until the man who is half as talented makes the same point and give him credit instead.
- Men must be willing to accept that diversity on scientific staff and in speaker lists at meetings is a key contribution to scientific excellence. It is NOT social engineering.
- Male astronomers must be trained to be repulsed by a male/female ratio that is  $> 2$  in any astronomical organization or meeting. And then take action to fix it and prevent it from happening in future.
- Make sure family friendly policies are in place in your institution, even if you are single and have no children.
- If a man witnesses other men dominating a discussion at a meeting/conference while a woman is trying to make a point then he can speak up and tell his colleagues to shut up and listen (although this too can be patronizing).
- Become aware of your own biases. Note: the biggest obstacle to overcoming bias is to be unaware that bias exists!

- Attend a training session on diversity and bias even if you think you, your group, and your department has no problem(s).
- Do not comment on a woman's appearance in any professional context. It is irrelevant.

### Suggestions from AAWOMEN Readers

- Never belittle women by calling them ‘girls’, ‘cute’, etc.
- Have you ever referred to a woman candidate/postdoc/student/professor/etc as ‘the woman’? If so, ask yourself if you would refer to a foreign national as ‘the foreigner’ or an African American as ‘the black.’
- If you tell and/or hear a bad joke about women, retell the joke with an ethnic or religious minority in the punch line; most of these “jokes” are no longer funny.
- Make sure all search committees are following good-hiring procedures (see Abby Stewart's talk on Thursday)
- If you are taking your male postdoc/grad student to get a drink, make sure that you ask your female postdoc/grad student to come along; women often miss out on such casual gatherings which can result in being excluded from major projects.
- At conferences or colloquia, seek out your colleague(s) and introduce your female postdoc/grad student to them by telling them what project she is working on.
- Do not single out a woman in your group to organize the skypecons and make the calendar for meetings. Woman does NOT equal secretary! Asking someone to volunteer in front of the entire collaboration is a better way to go.

The members of the audience of the Town Hall had some terrific suggestions as well:

- Make it acceptable for men to take time off with kids.
- Postdocs, students, soft money need maternity leave, too.
- This will need support from federal grant agencies.
- Do not interrupt, let women finish their sentences.
- Promote mechanism for fair hiring.
- Stomp on attitudes of colleagues that are inappropriate.
- Do not deny that there is a problem.
- Listen to concerns of women.
- Speak up on women's behalf.
- Recognize that women end up doing more mentoring.
- Recognize that women get asked to do more service in order to support diversity.

As a final note, even junior people, such as junior faculty, postdocs, soft money researchers, and students can have an influence! The CSWA has a brochure on the topic, entitled “What Can I Do?” and it is available at <http://aas.org/cswa/WhatCanIDo.pdf>.

Thanks to all who attended the CSWA Town Hall for making it such a success!



# Committee on Employment

Liam McDaid (mcdaidl@scc.losrios.edu)

## Big Science in a Splintering Culture

It is unlikely that anyone reading this was a practicing scientist before World War 2 (if you were, please contact me). Science before then was not exactly a Mom and Pop enterprise. Bell Labs was already on its way to becoming a research behemoth—Jansky did his major work for them in the 1930s. Yet pre-War science was much smaller, less diverse in its practitioners and arguably more focused. The War clarified for anyone who still doubted just how important science was to a modern economy. Funding soon followed and by the time of *Sputnik* the torrent of money rivaled a working Martian outflow channel. Jobs and careers soon followed. There were two generations—with a third just starting out—that lived in this environment. Funding has ebbed and flowed, but has been consistently larger than anytime before World War 2. So have the number of scientists. As many looking for work in astronomy are aware, the rate of funding has not kept up with the growth of PhDs in physics and astronomy.

Within a decade after the floodtide spurred on by *Sputnik*, there was a massive reaction against science in the form of the Counterculture movement. There were many issues brought up in the debates of that time, but a strong thread of antiscience travels through them. The beginning of today's antiscience can be traced back to then, excepting ancient antagonism from some religious sects. Since America and the world had more science in the last half century than ever before, why is science under attack? Why is Marin County (north of San Francisco with a median annual household income of \$84,000) a power center for the Anti-vaccine movement? Why are more people more suspicious than ever before of science, from climate models to genetic engineering? People are not suspicious of the scientific method and it even has points in common with American culture—the U.S. system of government is still referred to as a “Great Experiment.” People who know scientists are not suspicious of them individually and usually trust the competence that the scientists *they personally know* have in their specific fields such as medicine or physics. Often, the field of astronomy also gets a free ride from this suspicion partly due to the “Rule of Cool” (<http://tvtropes.org/pmwiki/pmwiki.php/Main/RuleOfCool>). Could the suspicion be directed not at science, but at Big Science?

Peter Gabriel sings in the song “DIY”:

*When things get so big  
I don't trust them at all  
You want some control  
You've got to keep it small*

This also follows a strain of American culture. There is good news for those who are in fact suspicious of big things and it is the death of Big Culture. In astronomy E/PO, one figure still stands as a colossus—Carl Sagan. He became the voice of

astronomy to most Americans thirty years ago. But he lived and worked in an age of four TV channels and a unified mass culture—most people watched the same TV shows, listened to the same music, debated in the same arenas. That time is gone and buried. Big Culture is rapidly splintering into a million fragments. This is why in spite of many people today aspiring to be a new Sagan, there will never be anyone who will speak for astronomy to the world as he did. Yet a greater number of people are interested in astronomy than ever before. They are interested in what we do and have more ways of finding out quickly about what goes on in astronomy than ever before.

This paradox is, in fact, an opportunity. Many years ago, there was a higher percentage of astronomers among humanity simply because they were needed to make the calendar work, so every village, city or camp of nomads had to have a few. In a mass culture, one astronomer can reach millions. In a splintered culture, many are needed again. Some astronomers eschew any responsibility in public outreach, as it is not “their thing.” But this is exactly the time when it needs to be done. Enlightened self-interest alone would imply that the best way of ensuring funding for your field is make sure it stays in the minds of the public and the officials that public votes into power. Work to keep the astronomy “brand” fresh and ever marketable. Our field is very fortunate in having and keeping (over many decades) enormous good will from the public. What opportunities exist? Teaching astronomy part time. This can be done in many places even in the present economy. If you are already employed, find someone locally who teaches astronomy and offer a guest lecture. Such a gesture will be warmly received. Contact local small newspapers and write a few pieces for them. Write pieces for science/astronomy blogs (of which there are plenty), or start your own. The ivory tower is gone, but the chalets of the thoughtful and curious are spread across the land. Try to visit them now and again.

The AAS committee on employment exists to help our members with their careers. Your ideas are important, so let us hear them!

*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 (<http://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)).*

# When It Rains, It Pours Astronomy in Seattle

As more than one observer pointed out, there is a certain irony in holding a major astronomy conference in Seattle, Washington, a city not exactly known for clear skies. But that did not keep 2,959 astronomers, educators, exhibitors, and journalists from heading to the Washington State Convention & Trade Center in downtown Seattle last 9-13 January for the 217th meeting of the AAS. In doing so, they set a new attendance record for a Society meeting outside Washington, DC. And they got the weather the city is famous for: rain, rain, and more rain—and some slushy snow, too.

Contributing to the high turnout was the fact that this was a joint meeting with the Historical Astronomy Division (HAD) and the High Energy Astrophysics Division (HEAD). For five straight days, every square foot (or meter, if you prefer) of space in the Convention Center was abuzz with activity. Anchoring the science program were 17 prize and invited talks, about 650 contributed oral presentations, and nearly 1,300 posters. Nearly 40 discoveries were featured in 11 press conferences, and one item—a Hubble image of Hanny's Voorwerp—even made it onto David Letterman's hugely popular late-night TV show.

Next up is the Boston meeting, 22-26 May (see page 6). We cannot guarantee nice weather, but at least we do not have to guarantee rain!

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



**Left:** Hours before Sunday's opening reception, the AAS Council met to do the Society's business, some of which—like ratifying the recommendations of the award committees—was actually quite enjoyable! Photo by Kevin B. Marvel, © 2011 AAS. **Middle:** Stephanie Slater and Dan Lyons (both Univ. of Wyoming) led a workshop entitled "Astronomy Is a Verb: Engaging ASTR 101 Students in Astronomical Research" on Sunday afternoon. Unless otherwise credited, all photos are by Leeland and Kelley Knight Heins, © 2011 AAS. **Right:** A remarkable turnout of college students, many of them members of the Society of Physics Students, led to a standing-room-only crowd at the undergraduate reception that immediately preceded the opening reception on Sunday evening. This bodes well for the future of the AAS and astronomy more generally!



**Left:** Former AAS Secretary Arlo Landolt and former AAS Press Officer Steve Maran were among the many celebrants who kicked off the meeting with food, drinks, and conversation at the opening reception. **Middle:** John Mather (NASA/Goddard), who shared the 2006 Nobel Prize in physics, launched the scientific program with an opening address that stressed the crucial role of the James Webb Space Telescope in advancing astronomy during the coming decade. **Right:** Carolyn Porco (CICLOPS/Space Science Inst.) gave the inaugural Kavli Lecture, "Cassini Eyes the Rings of Saturn," on Monday morning. Celebrating with her are Miyoung Chun (Kavli Foundation) and AAS President Debra Elmegreen (Vassar College).



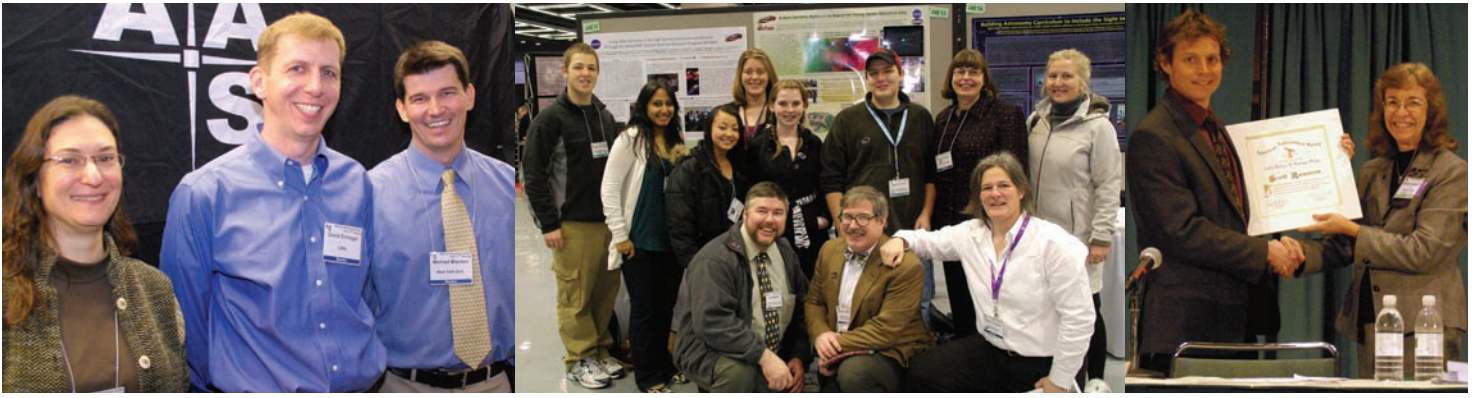
**Left:** Press activities got under way Monday morning with a briefing on exoplanets and their host stars featuring Ed Guinan (Villanova Univ.), Geoff Marcy (UC Berkeley), Natalie Batalha (San Jose State Univ.), and, believe it or not, one of two Univ. of Washington graduate students named Adam Kowalski (the other studies anthropology). **Middle:** Harvey Tananbaum (Harvard-Smithsonian Center for Astrophysics) reviewed key results from the Chandra X-ray Observatory's first decade-plus in space during his Monday invited talk. **Right:** At another Monday press conference, the subject was active galactic nuclei and their environment. Presenters included Bill Keel (Univ. of Alabama, Tuscaloosa), Kevin Schawinski (Yale Univ.), Leo Blitz (UC Berkeley), and Amy Reines (Univ. of Virginia). AAS Press Officer Rick Fienberg officiated.



**Left:** Keel and Schawinski described evidence that Hanny's Voorwerp shines with the light of a quasar that shut down only recently in the neighboring galaxy IC 2497. Assisting with the Q&A after the briefing were Dutch schoolteacher Hanny Van Arkel, who discovered the Voorwerp ("object") while volunteering with the Galaxy Zoo project, and Zookeepers Chris Lintott (Adler Planetarium) and Robert Simpson (Oxford Univ.). Photo by Rick Fienberg, © 2011 AAS. **Middle:** After receiving his prize certificate from Debra Elmegreen, Tommaso Treu (UC Santa Barbara) gave his Pierce Prize lecture, "Dark Matter and Black Holes Over Cosmic Time." **Right:** At a news briefing on Monday afternoon, Michael Briggs (Univ. of Alabama, Huntsville) and Julie McEnery (NASA/Goddard) described Fermi observations of electron-positron pairs associated with terrestrial gamma-ray flashes. Joseph Dwyer (Florida Inst. of Technology) and Steven Cummer (Duke Univ.) also participated, but by telephone, which is why they are not in the picture.



**Left:** Joseph Moore and Shanique Brown (both Southern Illinois Univ., Edwardsville) presented posters exploring different aspects of the Zooniverse family of citizen-science projects. **Middle:** Paul Goldsmith (JPL/Caltech) launched Tuesday's science program with an invited talk on early results from the Herschel Space Observatory, the largest astronomical telescope currently in orbit. **Right:** Tuesday morning's briefing featured some of the first science results from the Planck spacecraft. Charles Lawrence (JPL) described the mission's early-release source catalog, George Helou (IPAC/Caltech) reported the discovery of ultracold cores in galactic star-forming regions, and Elena Pierpaoli (Univ. of So. Calif.) unveiled distant clusters of galaxies detected via the Sunyaev-Zel'dovich effect.



**Left:** To mark the 8th data release from the Sloan Digital Sky Survey, Connie Rockosi (UC Santa Cruz), David Schlegel (LBNL), and Michael Blanton (New York Univ.) impressed reporters with the largest maps ever made of the night sky, including one composed of more than a trillion pixels. **Middle:** Tuesday’s poster session featured presentations by teachers and students from several Wisconsin high schools serving young scientists with vision and hearing disabilities. Back: Nicholas Xamplas, Rozina Kanjee, Jennifer Van Der Mollen, Mark Doering, Vivian Hoette (Yerkes Obs./Univ. of Chicago), Connie Gartner. Middle: Anna McCartney, Lyssa Matsche. Front: Lee Gamble, Kevin McCarron, Chelen Johnson. **Right:** Scott Ransom (NRAO) received the Warner Prize from Debra Elmegreen, then gave a stirring lecture on millisecond pulsars, which he calls “the gifts that keep on giving.”



**Left:** Among the recipients of the first Rodger Doxsey Travel Prizes were (front row) Vithal Tilvi (Arizona State Univ.), Jacqueline Faherty (AMNH), Janet Colucci (UC Santa Cruz), Rudy Montez (RIT), and (back row) Jarron Leisenring (Univ. of Virginia), John Tobin (Univ. of Michigan), Daniel Perley (UC Berkeley), and Roberto Galvan-Madrid (CfA). **Middle:** Deputy Press Officer Larry Marschall (Gettysburg College) emceed the Tuesday-afternoon briefing, during which Matt Holman (CfA) and Lynne Jones (Univ. of Washington) discussed results from Pan-STARRS’ survey of the outer solar system and how future observations by LSST will extend them. Greg Laughlin (UC Santa Cruz) participated by phone to put current and future studies in historical context. **Right:** At Tuesday’s Decadal Survey Town Hall, Astro2010 committee member and AAS Councilor Meg Urry (Yale Univ.), center, offered to buy drinks for the first two early-career astronomers to step forward and ask questions. Undergraduate Teresa Wright and grad student Alec Hirschauer (both Indiana Univ.) obliged, and their drinks showed up shortly after this photo was snapped. Courtesy Alec Hirschauer.



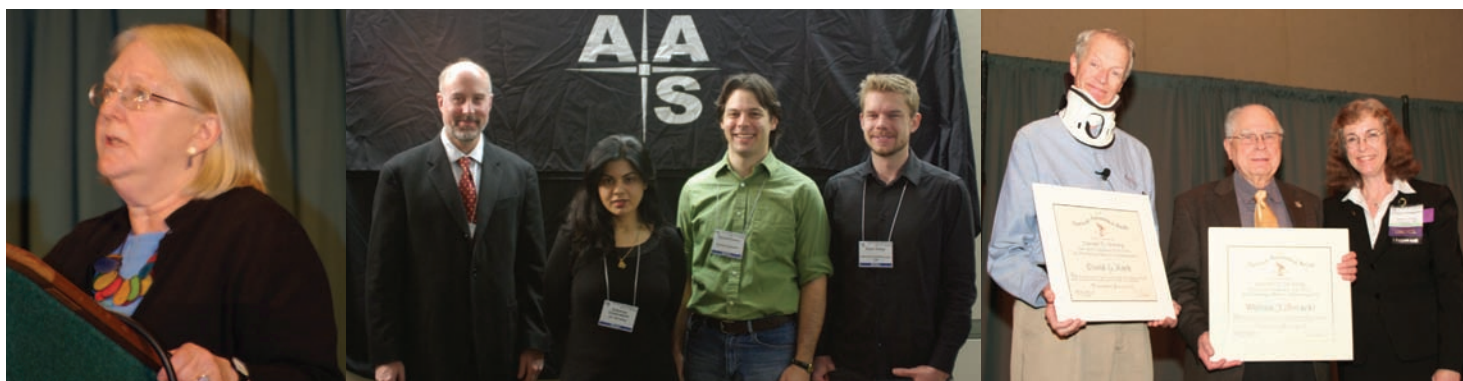
**Left:** Although considered as standard candles, Cepheid variables can change their behavior. And though it is used as a calibration source at high energies, the “constant” Crab Nebula is anything but. Explaining the particulars to reporters at a Wednesday-morning briefing were Marco Tavani (INAF/Univ. of Rome), Colleen Wilson-Hodge (NASA/Marshall), Roger Blandford (Stanford Univ.), Massimo Marengo (Iowa State Univ.), and Scott Engle (Villanova Univ.). **Middle:** Flanked by cosmologists and Heinemann Prize winners Michael Turner and Rocky Kolb (both Univ. of Chicago), Dennis Overbye (*New York Times*), author of the book *Lonely Hearts of the Cosmos*, doesn’t seem so alone. **Right:** Kolb and Turner received their joint AIP/AAS Heinemann Prize in Astrophysics from AIP Vice-President Cathy O’Riordan and AAS President Debra Elmegreen.



**Left:** The remote universe was the subject of a midday Wednesday briefing. Rogier Windhorst (Arizona State Univ.) explored how gravitational lensing bias will affect JWST’s deep surveys of the first-light epoch. Peter Capak (Caltech) reported high levels of activity in a massive protocluster of galaxies at a redshift of 5.3. And Haojing Yan (Ohio State Univ.) explained how lensing distorts galaxy counts at very high redshifts. **Middle:** On Wednesday afternoon, AAS Press Officer Rick Fienberg moderated a briefing on black holes. Karl Gebhardt and Jeremy Murphy (both Univ. of Texas, Austin) reported new measurements of the mass of M87’s black hole: 6.6 billion Suns. Joseph Neilsen (Harvard Univ.) took the pulse of the stellar-mass black hole in GRS 1915+105 using the Chandra X-ray Observatory, and S. George Djorgovski (Caltech) unveiled new observations showing the hierarchical assembly of supermassive black holes in distant galaxies. **Right:** AAS President Debra Elmegreen presented the 2010 Annie Jump Cannon Prize to Anna Frebel (CfA), who then gave the prize lecture “Stellar Archaeology: New Science with Old Stars.”



**Left:** The HEAD Rossi Prize went to the H.E.S.S. gamma-ray observatory team, led by Felix Aharonian, Heinz Völk, and Werner Hofmann (all Max-Planck-Institut für Kernphysik, Germany). **Middle:** At the AAS banquet on Wednesday evening, Debra Elmegreen presented the Joseph Weber Award to Donald Hall (Univ. of Hawaii) for his innovative contributions to the development of low-noise detectors for infrared astronomy. Photo by Kevin B. Marvel. **Right:** Also at the banquet, Virginia Trimble (UC Irvine) received the George Van Biesbroeck Prize honoring her many years of dedicated service to the national and international communities of astronomers, including her expert assessments of progress in all fields of astrophysics and her significant roles in supporting organizations, boards, committees, and foundations in the cause of astronomy. Photo by Kevin B. Marvel.



**Left:** On Thursday morning, Abigail Stewart (Univ. of Michigan) gave an eye-opening plenary talk entitled “Addressing Unconscious Bias: Steps Toward an Inclusive Scientific Culture.” **Middle:** At a Thursday briefing Joshua Frieman (Fermilab/Univ. of Chicago) described the forthcoming Dark Energy Survey, and Sukanya Chakrabarti (UC Berkeley) explained how to find dark-matter-dominated companions to the Milky Way. David Pooley (Eureka Scientific) reported new dark-matter measurements in lensed quasars, and Ryan Foley (CfA) unveiled a refinement in Type Ia supernova light curves that should aid in the study of dark energy. **Right:** Before closing the meeting late Thursday afternoon, AAS President Debra Elmegreen presented the inaugural Lawrence Berkeley – New York Community Trust Prize to Kepler team leaders David Koch and Bill Borucki (both NASA/Ames), who then described the mission’s development and some of its early exoplanet discoveries. Photo by Rick Fienberg.

# 2011 AAS Prize Winners



Left to right: Sandra Faber, Rachel Mandelbaum, Grace Deming, David S. Leckrone, Steven Furlanetto

## **Sandra Faber - Henry Norris Russell Lectureship**

The 2011 Henry Norris Russell Lectureship of the American Astronomical Society is awarded to Sandra Faber of the University of California at Santa Cruz for a lifetime of seminal contributions to galaxy evolution and dynamics, the distribution of the mysterious “dark matter” in the universe, for leading the construction of astronomical instrumentation, and for mentoring future leading astronomers.

## **Rachel Mandelbaum - Annie J. Cannon Award**

The 2011 Annie Jump Cannon prize to be awarded to Rachel Mandelbaum for her ground-breaking contributions to the field of weak gravitational lensing of galaxies. Her work on understanding and eliminating numerous systematic effects inherent in weak lensing data have advanced this technique to the point where it can now be used with confidence for precision cosmology. Dr. Mandelbaum has used her weak lensing detection pipeline on the Sloan Digital Sky Survey to produce the best measurement of the relative distribution of galaxies and their dark-matter halos. She has also demonstrated the first clear detection of intrinsic shape alignment in nearby galaxies. Her work has profound implications for testing structure formation theories as well as the efforts to study the dark matter and dark energy through weak lensing.

## **Grace L. Deming - AAS Education Prize 2011**

For blazing the trail of astronomy education research, represented by this small snapshot of her many contributions:

Providing us with the Astronomy Diagnostic Test, the first means within our discipline to assess the success of our instruction, and convincing the astronomical community of the importance of assessment.

Tirelessly promoting the use of research to guide our instruction even before the field of astronomy education research existed.

Being ahead of her time in educating us about the importance of collaborative group learning to improve student understanding.

## **David S. Leckrone - 2011 George Van Biesbroeck Prize**

The 2011 George van Biesbroeck Prize, which honors an individual for long-term extraordinary or unselfish service to astronomy, is awarded to Dr. David S. Leckrone, for his exceptional devotion to the manifold aspects of developing, upgrading, and preserving the Hubble Space Telescope and its scientific programs from 1976 through his retirement in 2009. As Senior Project Scientist for HST (1992-2009) and in his previous capacities, he was totally committed to the Hubble project and worked tirelessly and passionately to make it a unique asset for the astronomical community that now constitutes a worthy symbol of national pride and technical accomplishment.

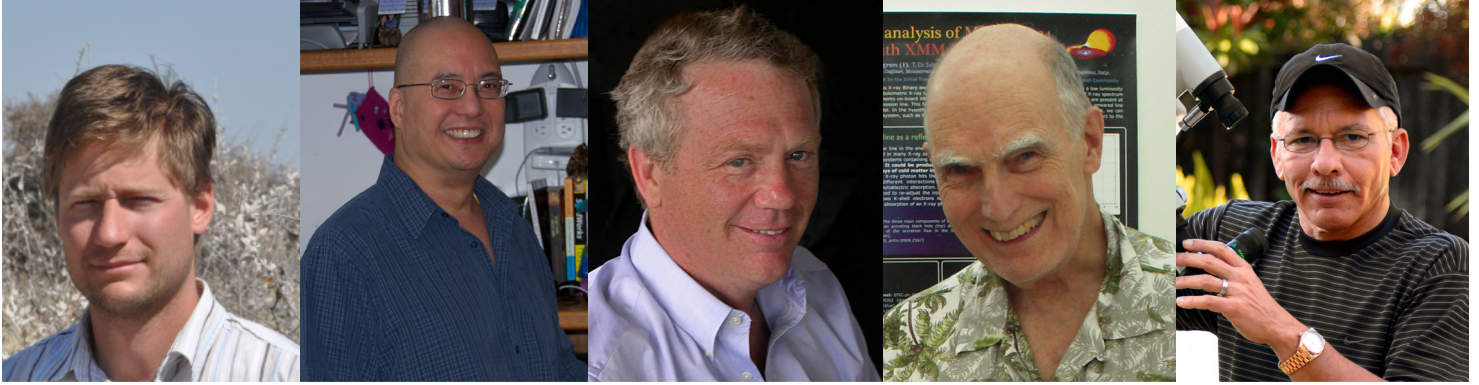
Dr. Leckrone’s efforts extended beyond the arena of scientific and engineering management through strong involvement in public outreach and education. His scientific leadership, technical insights, and courage and wisdom as a manager were vital to the resounding success of each of the servicing missions to the Hubble telescope and notably the final one. Dr. Leckrone was deeply involved in the definition and implementation of each of the science instruments that have flown on HST. In particular, it was his leadership that initiated the project to implement the Wide Field Camera 3, considered a scientific mainstay of the Hubble’s final complement of instruments.

## **Steven Furlanetto - Helen B. Warner Prize**

For his theoretical work in the field of high-redshift cosmology, including ground-breaking work on the epoch of reionization and its observational signatures, opening up new pathways to the study of reionization in the redshifted 21 cm hydrogen line.

## **Gaspar Bakos - Newton Lacy Pierce Prize**

For the impact he has had on the study of exoplanets, his contributions to our understanding of the unexpected diversity of exoplanet properties, and the extraordinary entrepreneurial spirit and capability he has shown in the development of one of the most successful systems for detecting transiting extra-solar planets (HATNet).



Left to right: Gaspar Bakos, Edward S. Cheng, Robert P. Kirshner, Hale Bradt, R. Jay GaBany

### Edward S. Cheng - Joseph Weber Award

The 2010 Joseph Weber award is presented to Dr. Edward S. Cheng of Conceptual Analytics, LLC for his critical contributions to the development of several key instruments on the Hubble Space Telescope.

Dr. Cheng played a key role in the oversight of the instrument development for the HST servicing missions. He led the ACS recovery effort, when “fixing ACS” went beyond what had been done on a servicing mission before. He led the technical development of the thermoelectric cryocooler for NICMOS. This work enabled the rebirth of NICMOS and its use in key projects such as the high redshift supernova cosmology study which served to confirm the existence of dark energy. That effort was a pathfinder for cryocoolers in space for future missions such as JWST. He was also a driving force in the development of WFC3 which was installed on HST in May 2009. He worked with Rockwell/Teledyne to develop a HgCdTe detector with a 1.7 micron cutoff which would enable it to operate without cryogenics. WFC3 is arguably the most sought-after instrument in astronomy today. The great success of ACS, WFC3 and NICMOS is directly due to Dr. Cheng’s effort and his ingenuity in instrument development.

### Robert P. Kirshner - Dannie Heineman Prize

The 2011 Dannie Heineman Prize for Astrophysics is awarded to Robert P. Kirshner for his sustained and enduring contributions to our understanding of supernovae and cosmology. We particularly note his work with students using supernova light curves as calibrated standard candles, which has provided evidence for an accelerating expansion of the universe. The dark energy inferred from this result is one of the deepest mysteries of modern science.

### Hale Bradt - Chambliss Book Award Winner

We have chosen Hale Bradt’s book “Astrophysics Processes; The Physics of Astronomical Phenomena” for the Chambliss Astronomical Writing Award for an upper level undergraduate/graduate astronomy textbook.

“Astrophysics Processes” is a serious, high-level, calculus-based text for introducing the basics of the physics of astronomical phenomena at roughly the junior-senior undergraduate or first year graduate level. “Astrophysics Processes” covers roughly a dozen major astrophysical ‘processes’, a few of which pertain specifically to galactic astrophysics, while all the other processes have broad applicability to both galactic and extragalactic astrophysics.

### R. Jay GaBany - Chambliss Amateur Achievement Award

The American Astronomical Society is honored to announce that R. Jay GaBany of San Jose, California is the 2010 winner of the Society’s Chambliss Amateur Achievement Award. Using a 20-inch telescope at his remote Black Bird Observatory in New Mexico, Jay has been one of the leading amateur CCD astrophotographers for the past decade. But his contributions go far beyond just taking pretty pictures. In recent years, Jay has devoted hundreds of hours working with professional astronomers such as David Martinez-Delgado of the Max Planck Institute for Astronomy and Stephen Majewski of the University of Virginia to take deep CCD images of galaxies far beyond our Local Group. Jay’s images frequently reveal faint tidal streams and rings in the outer halos of galaxies, indicative of recent and ongoing galaxy interactions with dwarf satellites, supporting the model of hierarchical galaxy formation. Observing under very dark skies, and using very sensitive cameras, high-quality flat fields, and long exposure times, Jay has managed to capture details not seen in professional images. Papers based on Jay’s images have been published in journals such as the *Astrophysical Journal*, the *Astronomical Journal*, and *Astronomy & Astrophysics*, with Jay being listed as coauthor.

# Chambliss Astronomy Achievement Student Awards

Through the generosity of Carlson Chambliss, the AAS established the Astronomy Achievement Student Awards to recognize exemplary research by undergraduate and graduate students who present posters at the semi-annual AAS meetings. Awardees are honored with an engraved bronze Chambliss medal and a certificate. Graduate and undergraduate posters are considered separately. Students with Honorable Mentions receive a certificate.

The AAS thanks all the students who participated in the 217th Meeting of the American Astronomical Society Chambliss Student Achievement Awards and who made the judges' job difficult indeed due to the high quality of the presentations.

We also thank all the judges who volunteered their time and energy; and a very special thank you to AAS member Bill Wells who organized the scheduling.

## Graduate Medal

Jana Bilikova  
Lia Corrales  
Christopher Crockett  
Curtis McCully  
Amanda Moffett  
Farisa Morales  
Erik Tollerud

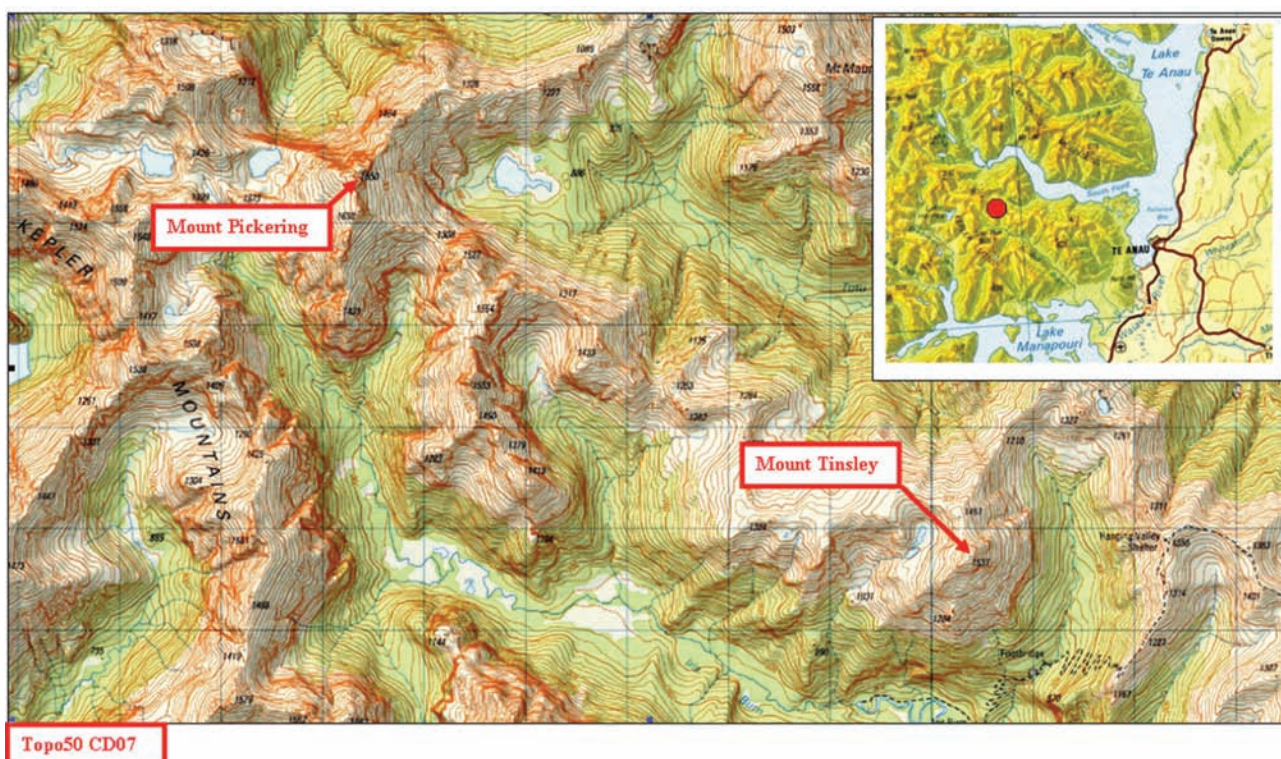
## Undergraduate Medal

Marshall Johnson  
Luke Leisman  
Jennifer Nielsen  
Grant Remmen  
Justin Spilker  
Alexa Villaume  
Stephanie Zajac

## AAS Letter Helps Secure Name of Mount Tinsley in New Zealand

In early 2009, the AAS was approached by astronomy supporters in New Zealand to write a letter of support to the New Zealand Geographic Board (Nga Pou Taunaha o Aotearoa) for the potential naming of a mountain in the Kepler range after Beatrice Tinsley. Following Executive Committee approval, a letter was sent to the board from the AAS supporting the naming of the feature and highlighting the important contributions Beatrice Tinsley made to astronomy. The board has an intense public comment process and, although the naming of the mountain was not particularly controversial, received four supporting submissions, one neutral submission and four negative submissions. After

consideration, a report was prepared for the Minister for Land information and the board's recommendation to move forward with the designation. As of 16 December 2010, the mountain, altitude 1537m and located in the Kepler Mountains 15 km west of Te Anau is now named Mount Tinsley. The feature is mapped on NZ topo map CD07-Manapouri, GR 703 598 and a map image of the feature is shown on this page. The AAS is also delighted to point out that simultaneously the minister designated a nearby mountain as Mount Pickering, but not named for the founding father of the AAS, but instead William Hayward Pickering (1910-2004) who was active in space exploration.





# Agency News

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

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

### Staff Changes in AST

Vernon Pankonin was appointed Deputy Division Director for AST, effective 17 January. Pankonin is a long-time NSF employee who has served as Acting Deputy Division Director since May 2010. Among his many past duties within AST, he most recently has been program manager for NRAO and several mid-scale projects, and previously served as coordinator of the individual investigator program.

Edward Ajhar, from St. Thomas University in Florida, is a new rotator appointee who began a term in AST on 31 January. He is on the faculty and was Interim Dean of the School of Science, Technology and Engineering Management at St. Thomas. Ajhar's research has focused on measurement of galaxy distances via surface-brightness fluctuations. He will be working initially on the extragalactic portion of the general research grants program.

Maria Womack comes to AST as a rotator from St. Cloud State University in Minnesota. She is on the faculty there in the Department of Physics, Astronomy and Engineering Science. Womack's research focuses on the production and abundances

of molecules in comets, as well as on extrasolar planets. She will be working initially on the stellar astronomy and astrophysics portion of the general research grants program.

### FY 2011 and FY 2012 Budget Information

At the time of writing in early February, the NSF is still operating under a Continuing Resolution for FY 2011, although we are now in the fifth month of the fiscal year. The President's Budget Request for NSF for FY 2012 was scheduled to be released on 14 February. We expect to provide more information on both of these important items in the next issue of this newsletter.

### Funding Opportunities

The solicitation for proposals for University Radio Observatories for the period FY 2012 through FY 2014 is in the clearance process at NSF. We anticipate that this solicitation will be public by the time the newsletter is published, with proposal deadlines likely to be in May 2011. Please contact Richard Barvainis or see the AST web site at <http://www.nsf.gov/div/index.jsp?div=ast> for the solicitation once it is issued.

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## Announcements

### AAS Membership Calendar

As a membership benefit, the AAS Membership Calendar includes important dates, such as proposal and grant deadlines and AAS sponsored meetings. For only \$2,250, your institution or department can show support for the whole astronomical community and be featured prominently in astronomers' offices across the country. Sponsorship space is provided on a first-come, first-served basis. Groups interested in sponsoring a month may contact Crystal Tinch ([crystal@aaas.org](mailto:crystal@aaas.org)) for more information and pricing details for the 2012 calendar. Deadline for sponsorship is 1 September 2011.

### NSO Observing Proposal Deadline 15 May

The current deadline for submitting observing proposals to the National Solar Observatory is 15 May 2011 for the third quarter of 2011. Information is available from the NSO

Telescope Allocation Committee at P.O. Box 62, Sunspot, NM 88349 for Sacramento Peak facilities ([sp@nso.edu](mailto:sp@nso.edu)) or P.O. Box 26732, Tucson, AZ 85726 for Kitt Peak facilities ([nsokp@nso.edu](mailto:nsokp@nso.edu)). Instructions may be found at <http://www.nso.edu/general/observe/>. A web-based observing-request form is at <http://www2.nso.edu/cgi-bin/nsoforms/obsreq/obsreq.cgi>. Users' Manuals are available at <http://nsosp.nso.edu/dst/> for the SP facilities and <http://nsokp.nso.edu/> for the KP facilities. An observing-run evaluation form can be obtained at [ftp://ftp.nso.edu/observing\\_templates/evaluation.form.txt](ftp://ftp.nso.edu/observing_templates/evaluation.form.txt).

Proposers are reminded that each quarter is typically oversubscribed, and it is to the proposer's advantage to provide all information requested to the greatest possible extent no later than the official deadline. Observing time at National Observatories is provided as support to the astronomical community by the National Science Foundation.

# Calendar of Events

## AAS & AAS Division Meetings

### 42<sup>nd</sup> Division on Dynamical Astronomy Annual Meeting

10-14 April 2011, Austin TX  
<http://dda.harvard.edu/>

Invited speakers include:

- Eiichiro Komatsu - University of Texas at Austin, "What every dynamicist should know about... Cosmology"
- Srinivas Bettadpur - University of Texas at Austin, "GRACE"
- Andrea Milani - University of Pisa; the Brouwer Award Lecture
- Matt Tiscareno - Cornell University, "Planetary rings"
- Ed Thommes - University of Guelph, "Planetary formation dynamics"
- Martín López-Corredoira - Instituto de Astrofísica de Canarias, "Galactic Dynamics"
- Jenny Greene - University of Texas at Austin Public lecture, "Black holes"

Online registration ends 11:59 PM EDT, Thursday, March 31, 2011.

### HAD Meeting

22 May 2011, Boston, MA  
<http://had.aas.org/meetings/>

### SPD Meeting

12-16 June 2011, Las Cruces, NM  
[http://spd.aas.org/navbar\\_meetings.html](http://spd.aas.org/navbar_meetings.html)

### 12<sup>th</sup> Divisional HEAD Meeting

7-10 September 2011, Newport, RI  
<http://www.confcon.com/head2011/>

### 43<sup>rd</sup> Annual DPS Meeting

2-7 October 2011, Nantes, France  
<http://dps.aas.org/meetings/>

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

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

### HAD Meeting

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

## Other Events

### 42<sup>nd</sup> Canadian Astronomical Society Meeting

30 May-2 June 2011, London, Ontario  
Dr. Sarah Gallagher (sgalla4@uwo.ca)  
casca2011@uwo.ca

### Frontier Science Opportunities with the James Webb Space Telescope

6-8 June, Baltimore, MD  
Massimo Stiavelli (mstiavel@stsci.edu)  
<http://www.stsci.edu/institute/conference/jwst2011>

### 9<sup>th</sup> Low Cost Planetary Missions Conference

20-24 June 2011, Laurel, MD  
lcpm9team@jhuapl.edu  
<http://lcpm9.jhuapl.edu/>

### Exploring Strange New Worlds: Gas Giants to Super Earths

1-6 May 2011, Flagstaff, AZ  
Charles Beichman  
(Charles.A.Beichman@jpl.nasa.gov)  
StrangeNewWorlds@ipac.caltech.edu  
<http://nexsci.caltech.edu/conferences/Flagstaff>

### Innovations in Data-Intensive Astronomy

3-5 May 2011, NRAO: Green Bank, WV  
Amy Shelton (ashelton@nrao.edu)  
<http://www.nrao.edu/meetings/bigdata/>

### Unveiling the Far-IR and Sub-mm Extragalactic Universe: Herschel, ALMA, CCAT, SPICA, and Beyond

12-14 May 2011, Irvine, CA  
Asantha Cooray (acooray@uci.edu)  
<http://physics.uci.edu/submm/>

### The First International Science Symposium with the SOAR Telescope

15-19 May 2011, Maresias Beach, Brazil  
Robert Blum (rblum@noao.edu)  
<http://www.lna.br/FISSS2011/>

### \*Neutron Stars and Gravitational Waves: The next steps toward detection

22 May 2011, Boston, MA  
Keith Riles (kriles@umich.edu)  
<https://www.lsc-group.phys.uwm.edu/ligovirgo/cw/public/NS/May11/>

### Galaxy and Central Black Hole Coevolution: Gravitational Wave and Multi-messenger Astronomy

22 May-5 June 2011, Aspen Center for Physics  
Matthew Benacquista  
(benacquista@phys.utb.edu)  
[http://phys.utb.edu/~benacquista/Aspen\\_2011\\_SMBH](http://phys.utb.edu/~benacquista/Aspen_2011_SMBH)

### \*Frontier Science Opportunities with the James Webb Space Telescope

6-8 June 2011, Baltimore, MD  
Jason Kalirai (jkalirai@stsci.edu)  
<http://www.stsci.edu/institute/conference/jwst2011>

### 8<sup>th</sup> International Planetary Probe Workshop

6-10 June 2011, Norfolk, VA  
David H. Atkinson (atkinson@uidaho.edu)

### \*Summer School in Statistics for Astronomers VII

6-10 June 2011, University Park, PA  
Eric Feigelson (edf@astro.psu.edu)  
<http://astrostatistics.psu.edu/su11scma5/>

### \*The 24<sup>th</sup> Space Cryogenics Workshop

8-10 June 2011, Idaho  
[www.spacecryogenicsworkshop.org](http://www.spacecryogenicsworkshop.org)

### Very Wide Field Surveys in the Light of Astro2010

13-16 June 2011, Baltimore, MD  
widefield2011@pha.jhu.edu  
<http://widefield2011.pha.jhu.edu/>

### Statistical Challenges in Modern Astronomy V

13-17 June 2011, University Park, PA  
Eric Feigelson (edf@astro.psu.edu)  
<http://astrostatistics.psu.edu/scma5>

### \*BUKS2011 Workshop on MHD Waves and the Seismology of the Solar Atmosphere

27-29 June 2011, Palma de Mallorca (Spain)  
J. L. Ballester (joseluis.ballester@uib.es)  
[www.buks2011.org](http://www.buks2011.org)

### Stellar Polarimetry: Birth to Death

27-30 June 2011, Madison, WI  
starpol@etsu.edu  
<http://arwen.etsu.edu/starpol>

**International Summer Institute for Modeling in Astrophysics (ISIMA) 2011**  
27 June-5 Aug 2011, Santa Cruz, CA  
Pascale Garaud (pgaraud@ams.ucsc.edu)  
<http://isima.ucsc.edu/current.html>

**SKA 2011: International Square Kilometre Array Forum, Science, and Engineering Meetings**  
4-8 July 2011, Banff, Canada  
<http://www.ska2011.org>

**\*Sixth NAIC/NRAO School on Single Dish Radio Astronomy**  
10-16 July 2011, Green Bank, WV  
Karen O'Neil (koneil@nrao.edu)  
<http://www.nrao.edu/meetings/sds6/>

**4th Kepler Astroseismic Science Consortium Workshop**  
11-15 July 2011, Boulder, CO  
Travis Metcalfe (travis@hao.ucar.edu)  
<http://www.hao.ucar.edu/KASC4/>

**Four Decades of Research on Massive Stars. A Scientific Meeting in the Honour of Anthony F.J. Moffat**  
11-15 July 2011, Montreal, Québec  
Nicole St-Louis  
(stlouis@astro.umontreal.ca)  
<http://craq-astro.ca/moffat/>

**Structure in Clusters and Groups of Galaxies in the Chandra Era**  
12-14 July 2011, Cambridge, MA  
Paul Green (pgreen@cfa.harvard.edu)  
<http://cxc.harvard.edu/cdo/xclust11/>

**Origins of Solar Systems Conference**  
17-22 July 2011, Mt. Holyoke College in South Hadley, MA  
<http://www.grc.org/>

**IAU Symposium No. 282**  
From Interacting Binaries to Exoplanets: Essential Modeling Tools  
18-22 July 2011, Tatranska Lomnica, Slovakia  
Contact: Mercedes Richards (mtr@astro.psu.edu)  
<http://www.astro.sk/IB2E/>

**2011 Sagan Summer Workshop: Exploring Exoplanets with Microlensing**  
25-29 July 2011, Padasena, CA  
Dr. Dawn Gelino (Sagan\_Workshop@ipac.caltech.edu)  
<http://nexsci.caltech.edu/workshop/2011/>

**Connecting People to Science: The 2011 Education and Public Outreach Conference of the Astronomical Society of the Pacific**  
30 July-3 August 2011, Baltimore, MD  
Albert Silva (asilva@astrosociety.org)  
<http://www.astrosociety.org/events/meeting.html>

**\*2011 X-ray Astronomy School**  
1-5 August 2011, Cambridge, MA  
Randall Smith (xas2011@head.cfa.harvard.edu)  
<http://cxc.harvard.edu/xrayschool/>

**Optical Engineering + Applications 2011 - Part of SPIE Optics + Photonics**  
21-25 August 2011, San Diego, CA  
customerservice@spie.org  
[http://spie.org/Optical-Engineering.xml?WT.mc\\_id=RCal-OPOW](http://spie.org/Optical-Engineering.xml?WT.mc_id=RCal-OPOW)

**Extreme Solar Systems II**  
11-17 Sept 2011, Jackson Hole, WY  
Fred Rasio (rasio@northwestern.edu)  
<http://ciera.northwestern.edu/Jackson2011/>

**\*Fourth SONG (Stellar Observations Network Group) Workshop**  
15-20 September 2011, Charleston, SC  
James Neff (neffj@cofc.edu)  
[go.cofc.edu/SONG4](http://go.cofc.edu/SONG4)

**Cosmology with X-ray and Sunyaev-Zeldovich Effect Observations**  
19-22 September 2011, Huntsville, AL  
Max Bonamente, bonamem@uah.edu  
<http://icnsmmeetings.com/conference/xray/index.html>

**IAU Symposium 285: New Horizons in Time Domain Astronomy**  
19-23 September 2011, St. Catherine's College, Oxford, UK  
Mark Sullivan (sullivan@astro.ox.ac.uk)  
<http://www.physics.ox.ac.uk/IAUS285/>

**Archean to Anthropocene - the past is the key to the future**  
9-12 October 2011, Minneapolis, MN  
Pamela Fistell (pfistell@geosociety.org)  
<http://www.geosociety.org/meetings/2011/>

**First Kepler Science Conference**  
5-9 December 2011, Moffett Field, CA  
Matt Holman  
(mholman@cfa.harvard.edu)  
<http://kepler.nasa.gov/Science/keplerconference/>

\*New or revised listings

Note: Listed are meetings or other events that have come to our attention. Due to space limitations, we publish notice of meetings 1) occurring in 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).

# Washington News

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



“We need to out-innovate, out-educate, and out-build the rest of the world,” said President Obama in the State of the Union address on 25 January. His address focused on how the United States can compete in the global economy by supporting these three initiatives, with an emphasis on reform and fiscal responsibility.

Following the speech, the White House released “The State of the Union: President Obama’s Plan to Win the Future,” providing additional details about the FY2012 federal budget request<sup>1</sup>. By the time of publication, the President’s budget request will have been released on 14 February. The FY2012 federal budget will show how the President intends to support U.S. innovation, education, and rebuilding the nation’s infrastructure. Stay tuned to the AAS Public Policy Blog ([blog.as.org](http://blog.as.org)) for more information on the federal budget.

House Republicans announced their stance against President Obama’s initiatives days before the State of the Union address. The Republican Study Committee (RSC), a group of 175 House Republicans led by Rep. Jim Jordan (R-OH), released details of the Spending Reduction Act of 2011<sup>2</sup> on 20 January. The Spending Reduction Act was introduced in the House on 24 January. Sen. Jim DeMint (R-SC) introduced companion legislation in the Senate on 25 January.

The table compares some of President Obama’s State of the Union address and the Plan to Win the Future press release to the RSC Spending Reduction Act. Statements from the State of the Union are in quotations. Other notable cuts in the RSC Spending Reduction Act are the Corporation for Public Broadcasting, the National Endowment for the Arts, and the National Endowment for the Humanities, totaling \$780 million annual savings.

State of the Union and Plan to Win the Future	RSC Spending Reduction Act of 2011
“Within 25 years, our goal is to give 80% of Americans access to high-speed rail.”	Amtrak Subsidies (\$1.565 billion annually) Intercity and High Speed Rail Grants (\$2.5 billion annually) Subsidy for Washington Metropolitan Area Transit Authority (\$150 million annually) New Starts Transit (\$2 billion annually)
“By 2035, 80% of America’s electricity will come from clean energy sources.”	Department of Energy Grants to States for Weatherization (\$530 million annually) Energy Star Program (\$52 million annually) Eliminate taxpayer subsidies to the United Nations Intergovernmental Panel on Climate Change (\$12.5 million annually)
“Become the first country to have 1 million electric vehicles on the road by 2015.”	FreedomCAR and Fuel Partnership (\$200 million annually)
The President’s Budget will help increase the nation’s R&D investments, as a share of GDP, to its highest levels since President Kennedy.	Technology Innovation Program (TIP) at the National Institute of Standards and Technology (NIST; \$70 million annually) Manufacturing Extension Partnership (MEP) at NIST (\$125 million annually) Unspecified reductions in applied research at the Department of Energy (\$1.27 billion annually)

Science and innovation are important for our country’s economic future. But will the support for science be at the cost of support for the arts? Both science and the arts work in tandem to teach students critical thinking, problem solving, communication, and collaboration. There are a multitude of studies on how music and the arts increase math and vocabulary test scores in students of all ages. How do we find a balance in teaching science and the arts to prepare students to compete in a global economy with the importance of science and innovation in the federal government?

The key is integration. I recently gave a talk at Kenyon College in Gambier, Ohio and had the opportunity to talk to Dr. Paula Turner, a professor in astronomy and physics. In her astronomy courses she incorporates creative projects as part of the curriculum.

A decent portion of the grade is based on a small group creative project ranging from music, film, fashion, traditional artwork, to inventing astronomy educational materials. As part of the proposal for their project they are required to research what may have already been developed that relates to their project. For example, if a group chooses to create a musical composition inspired by astronomy then they would be required to research and report on The Planets op. 32 by Gustav Holst.

I was amazed at all the extremely creative projects. For example, there was project on a whole line of fashion apparel designs inspired by astrophysical objects such as globular cluster, planetary nebulae, and galaxies. Another group scripted, scored, filmed and produced an original short film based on the life of an astronomer. One group invented a Monopoly themed board game based on astronomy.

Do not forget to incite our creative nature which helps us to think critically outside of the general norms and ask tough questions as our nation focuses on supporting science and technology to improve our competitiveness in the global economy.

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<sup>1</sup><http://www.whitehouse.gov/the-press-office/2011/01/25/fact-sheet-state-union-president-obamas-plan-win-future>

<sup>2</sup><http://rsc.jordan.house.gov/Solutions/SRA.htm>