

# AAS Newsletter

January/February 2011, Issue 156 - The Online Publication for the members of the American Astronomical Society

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## President's Column

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

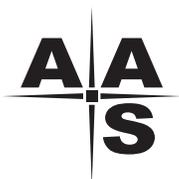
By the time you read this article, the Seattle meeting will be history, and the path forward on the implementation of Astro2010 Decadal Survey recommendations may be more clear. But as I am writing it, we are just in the midst of trying to understand how the new Congress will respond to scientific research needs in general and to astronomical priorities in particular, especially in light of the recently released Casani report on the James Webb Space Telescope (JWST) cost overruns. Congress needs to be reminded that basic research is important for the country. The benefits to society are broad, ranging from discoveries and innovative technologies that improve our lives, to a more technically competent workforce, the creation of new industries, and a scientifically literate society. At the present, though, the outlook for increased support in astronomy, whether space-based or ground-based, appears bleak. This is a challenge for the astronomical community, as we look forward to implementing the *New Worlds, New Horizons* (NWNH) recommendations.

A lot is at stake. Astro2010 took JWST as a given in building its integrated program of activities, since our task was to consider only those projects that were not yet underway. The top-ranked large space mission, WFIRST, is a relatively modest investment compared with JWST and Hubble Space Telescope (HST). Its carefully assessed cost and risk resulted in a realistic budget that should not be subject to the huge increases that befell the others. During the past few months, we have heard, through agency reports to the NASA Astrophysics Committee, the inter-agency Astronomy and Astrophysics Advisory Committee, and the National Research Council (NRC) Board of Physics and Astronomy, about the likely delay of the Wide-Field Infrared Survey Telescope (WFIRST) following the further delay of JWST. The NWNH report recommended the formation of a Decadal Survey implementation advisory committee to address possible mid-course adjustments if circumstances changed a lot. It appears we will need that committee sooner rather than later.

I think NASA is taking a positive step in moving JWST from the Astrophysics Division and making it a NASA-wide responsibility. That gives me hope that JWST, which is critical to our community, will still launch; indeed it cannot be allowed to fail. Much of the science of the next decade will use the data gathered by JWST, which will also serve as a springboard and as a complement to other endeavors. In addition, the leadership of the U.S. in astronomy depends on our development and execution of large projects like JWST.

This move of JWST also means that there should still be NASA Astrophysics funds to accomplish some of the exciting activities in the Decadal report. It is important to remember that the recommendations called for an integrated plan, giving equal weight to small, medium, and large priorities. Even if WFIRST is delayed, the smaller missions and activities should still be done. Indeed, our community depends on these. They include more frequent Explorer and suborbital launches that provide rapid data turnaround and training for the next generation of instrumentalists, and technology development, especially targeting exoplanet and cosmic microwave background polarization research. These are also stepping stones to the large missions of the future.

Regarding ground-based astronomy, increases in NSF Astronomy Division funding are also in jeopardy. My hope is that Large Synoptic Survey Telescope (LSST) and eventually a Giant Segmental Mirror Telescope (GSMT) can move forward into the NSF-wide Major Research Equipment and Facilities Construction (MREFC) funding lines for large projects, but these may still require an Astronomy Division commitment to subsequent operating funds. The next NSF Senior Review (i.e., the prioritization of ongoing projects to consider possible closures) will be critical for opening the way towards new starts. We look forward to Cornell Caltech Atacama Telescope (CCAT) as a complement to Atacama Large Millimeter Array (ALMA). In addition, the recommended NSF mid-scale innovations program of competitive funding would go a



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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 [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@aas.org](mailto:crystal@aas.org).

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

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

long way towards advancing a variety of subfields by supporting projects such as advanced adaptive optics, pathfinders towards a Square Kilometer Array (SKA) such as Hydrogen Epoch of Reionization Arrays (HERA), high energy, and solar research. At the same time, support and augmentation to the core programs, including funding for our national observatories and for analysis, theory and theory networks, computation, archiving, and laboratory astrophysics, is vital for carrying out the astronomical enterprise.

The way forward partly depends on Congress and funding agencies getting our message of why astronomy is important to the nation, even during times of great fiscal stress. Decadal Survey leaders have been actively engaging Washington staffers in discussions. Kevin Marvel and Bahcall fellow Bethany Johns, along with the AAS officers and the AAS Committee on Astronomy and Public Policy, will be particularly active this spring after the unveiling of President Obama's FY2012 budget request. I would like to acknowledge the generosity of Jack Burns, previous CAPP chair, and J. Craig Wheeler, our previous past-president, in agreeing to serve in those roles once again, following our untimely and tragic loss of John Huchra. Be sure to volunteer for Congressional Visit Day taking place in April if you would like to be involved too, and take time to write to your member of Congress and let them know astronomy is important to you. We must not be complacent and assume that *New Worlds*, *New Horizons* will convince Congress to fund our work; we must make our collective voice heard.

## From the Executive Office

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

As I write this column, we are preparing for the Seattle AAS meeting and preparing for the holidays. The meeting is setting up to have record attendance for a meeting outside of Washington. Nearly 2700 people will end up attending this meeting. [Note: 2950 actually attended]. The AAS meeting continues to play an important role in our community, serving as a focal point for our discipline, both scientifically and collaboratively. One of my great joys is seeing members working side-by-side at our meeting, laptops open, focused gazes on glowing screens displaying HST data, spectra from the Hobby-Eberly Telescope (HET) or Chandra images....it is great that so much collaboration and actual work gets done at our meeting.

Our meetings have expanded regularly over the years and we continue to seek ways to enhance their value to our community. Allowing greater flexibility for splinter meetings, whether for collaborative teams, mission planning or even science workshops was one enhancement that led directly to increased attendance. Allowing undergraduates to present research was another step endorsed by the AAS Council way back in 1998 that led to more attendance at our meetings. We have one of the highest attendance ratios in the non-profit scientific society sector. I think this speaks to our strong sense of community and the continuing value of our meetings to our members. We are always open to new ideas on how to improve our services to you and to our discipline. Feel free to send them in so we can continue to enhance the Society's value to you as a research astronomer, planetary astronomer, solar physicist, historian, high energy astronomer (aren't we all?) or dynamicist.

This is our first all electronic issue of the *Newsletter*. We have undertaken this change to a) save money, b) save resources and have a positive impact on the environment and c) match our methods of communication to our membership. Members who wish to receive a printed version and let us know, will continue to receive a printed version in a slightly different format. We anticipate this is a transitional phase for our *Newsletter* as further developments in technology will allow new and innovative communication channels directly to our membership in the coming years. This is exciting for us, but change always brings a sense of nostalgia. The *Newsletter* has served us well in print form for many years and was initiated by our third Executive Officer, Peter Boyce after the AAS relocated to Washington. We hope this transition will allow it to continue to serve our membership well for years to come, whether in its current digital form or in a new format enabled by the proliferation of ebooks, personal e-readers, smart phones and iPads. Stay tuned as we evolve over time for your benefit!

# The Meeting Program: Who decides?

Lee Anne Willson, AAS Vice-President and Christine Jones-Forman, AAS Vice-President

How do the speakers get chosen? Why is my poster on Wednesday? How did my talk on AGB stars end up in an exoplanet session? If you have wondered about these questions or others related to the content and scheduling of AAS meetings, you may find it interesting to peek behind the scenes at the process for organizing the scientific content of a meeting with more than 1,000 posters, dozens of oral sessions, special meetings and splinter sessions and town halls and, of course, a suite of outstanding major lectures.

Let's start with the easy part: How are the invited speakers selected? First, you may have noticed that a lot of the plenary talks are labeled as prize talks. Each of these is chosen by a committee for that prize—(see <http://aas.org/grants/awards.php>). These committees are appointed by the Council of the AAS, and the Council consists of the elected councilors and officers plus the Executive Officer of the AAS (who is appointed by the Council). So the process for selecting the prize lectures begins with your vote for AAS Council. Please do not overlook the periodic appeals by the AAS to suggest individuals interested in serving on these and other committees of the society; the challenge of identifying qualified, interested and available individuals representing a range of institutional affiliation and other qualities representative of our membership is significant and your help is appreciated. Your help also is essential in nominating candidates for prizes. Prize committees rely on their getting a number of strong nomination packages in order to select the award winners. Nominations for each prize are due each year at the end of June.

We have two new special plenary lectures that will be given in Seattle for the first time: These are the Kavli Lecture and the Berkeley Prize. The first lecture at every future AAS meeting will be a Kavli lecture, supported by the Kavli foundation, with the speakers chosen by the Vice-Presidents of the AAS, with concurrence by the Executive Committee. The reason why the VPs get this assignment is that we have responsibility for the scientific content of the meeting, a job that mostly consists of more mundane tasks as you will see shortly. The Berkeley Prize Lecture will be the last plenary talk in Seattle; the endowment for this began with a will written over 80 years ago that spent rather a long time in probate, but finally was settled last year. This speaker is also chosen by the Vice Presidents, working with the journal editors in this case, because the stipulation is that it must be for work published in the last year.

By the time the special and prize lecture slots are filled, there are relatively few general plenary speaker slots open. The VPs together with the President and President-Elect or Past-President (there is always one or the other) meet for several hours at the Executive Committee meetings and at each AAS meeting to settle that list for the next meeting. We try to make sure that these talks feature results that people are eager to hear—for example, hot results from a major new observing facility—with speakers who can comfortably manage the huge audience. We also try to include some other kinds of topics that are frequently requested such as those having to do with teaching or the economics or

sociology or history of our field. We also review the list of past invited speakers and generally do not invite people who have spoken at earlier meetings, at least not in the last five years.

The next items for decision and scheduling are special sessions, requested or spontaneous. Spontaneous special sessions might arise when there is a major mission releasing data and/or in the context of an invited talk. Most special sessions are proposed by AAS members who organize the contents. We approve most of these and also try to schedule these in appropriate conjunction to major lectures on the same topic, to accommodate folks who can only come to the meeting for one or two days.

For the summer meetings, we also have many “Meeting-in-a-Meeting” sessions to approve and schedule. These are more independently organized sequences of talks that take advantage of the infrastructure provided in the context of the AAS meeting—so you do not need an LOC to “host” a meeting on your favorite topic. For these, we try to accommodate the requests of the organizers, getting back to them to negotiate changes if the overall schedule suggests there is a problem. At the same time that these items are scheduled, we also select times for the town hall meetings and other assorted events for the meeting. Town Halls are generally scheduled during the “lunch breaks.”

All of what has been described so far is a small fraction of the presentations that will be made; the majority are regular or dissertation oral papers and posters. For Seattle there will be over 1,240 posters (not counting late submissions) and about 650 presentations sorted into 89 oral sessions of contributed papers. These are scheduled in a two-step process and you can help us with the first one: Sorting received abstracts into sessions of appropriate topic content and length. For the Seattle meeting we had 20 people who assisted in this process. These volunteers receive a little publicity and our gratitude for doing the job. Once the papers are sorted, the two more senior VPs work with HQ staff to schedule them by day. For Seattle, this session took place in October at HQ. The VPs came in to the meetings office where Lisa Idem and Kara North had produced a great array of slips of paper with session titles on them, and the wall had day/room blanks waiting for sessions to be assigned. We decided to make topic sequences that would likely appeal to particular research specialists, and then inserted those into sequential time slots, keeping them in the same rooms where practical. Some compromises were needed to make sure we had an even distribution of topics, and in some cases we needed to accommodate special requests for particular days or times. In a few cases we asked to see the abstracts for a particular session in order to decide how to sequence it, but in most cases we worked only from the (hopefully accurate and descriptive) session titles provided by the sorters.

*continued on page 4*

for a particular session in order to decide how to sequence it, but in most cases we worked only from the (hopefully accurate and descriptive) session titles provided by the sorters.

After all the oral sessions were set, we turned to the posters, where the main constraint was to get an even distribution over three days. For the posters, you would

like many similar topics posted together, but would also like some distribution of interest areas across the three days. In poster sessions, you may also have a large or small number of items per session, unlike the oral sessions.

So now you know why your paper ended up where it did.

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## Journals Update

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

### Happy 2011

As we start the new calendar year, let me remind you of several features that are recently available, and some that are soon to appear, in our journals. With the 2011 volumes, the *AJ* and the *ApJ* are using an article numbering scheme to identify individual papers in a volume. We are no longer paginating volumes continuously; each article is given a (unique) sequence number that is used to identify it in citations. I discussed this in the November 2010 *AAS Newsletter*.

It is now possible to express author names in alternate (non-Roman) alphabets—in other words, using different character sets. The most-requested expressions are for names in Chinese, Japanese, and Korean (CJK) languages. Support for CJK alphabets was integrated in our submission and production systems in 2010, and is available for all papers submitted to the *AJ* and the *ApJ*. Instructions are available online at [authors.aaas.org](http://authors.aaas.org).

We are prepared (and anxious!) to have more machine-readable data in the journals, as long as the data sets are germane to a specific journal article. We encourage authors to provide more of the data that underlie the figures that appear in their articles. 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.

The Society and its publishing partners are attentive to developments for mobile devices. The *AJ* and the *ApJ* can now be delivered to your iPhone or your iPad via the IOPscience Express app. We anticipate that AER will be available in AIP's iResearch app during 2011.

Sometime early in 2011, the Society will revise its calculation of author charges to use what we are calling “digital quanta.” Digital quanta are units of information in digital form, and are more or less the items that authors supply. When we make the switch, there should be little practical impact on you as an author, because we have created a model that matches the aggregate article charges quite well. Invoices will look a bit

different, and notices will be sent to financial administrators in the community in the weeks before we roll this out. See my column in the September 2010 *AAS Newsletter* for more information; note that there is a clarification published below. Finally, our journals development team will set priorities for 2011 and do some planning for the future at the AAS meeting in Seattle. I will talk about the new initiatives and upcoming features that result from those meetings next time.

### Clarifications about digital quanta

The item I wrote for the September *Newsletter* concerned a new approach to charging authors for material, a scheme based on the digital elements of articles. I have received several inquiries, and there are some things I would like to clarify.

First, the charging arrangements will continue to be based on pages in the “traditional” fashion, using the 2010 page charge rate, for a number of months more. The change to digital quanta will take place in early 2011, but not until we are certain that all the pieces are working accurately. Notices will be sent to departmental finance administrators and the like as the time approaches.

Next, the surcharge for color in print will remain as it is; the current charge is \$350 per color page. The color surcharge will not phase out until we stop printing the journals, and that will not occur until sometime later than 2011.

Finally, there was confusion over my use of the term “frames in a figure set.” “Frame” was a poor word choice, because it can make you think of an animation, which is not what these are. A figure set is a (usually large) number of related graphics—spectra in the same wavelength band for many different objects, a high-resolution spectrum of a given object rendered in many bands, the light curves for many binary stars, and so on. Often, conceptually, figure sets form something like an atlas. At any rate, each of the separate graphic panels is a “frame,” and those are the units being counted (100 at a time) in the calculation.

# 25 Things About...Bethany Johns

## AAS John Bahcall Public Policy Fellow



1. Device I would never give up ... My iPhone, which is actually my first cell phone. I am completely addicted to instant information.
2. My favorite place I want to travel ... Japan, I love their history, architecture, food, fashion, etc.
3. When I have an extra hour at home, I like ... Being crafty, oil painting, or reading.
4. At work, I like to wear ... High heels.
5. When I get home, I like to wear ... My house slippers and comfy robe.
6. The most important thing I learned from my mother was ... Love, joy, peace, patience,

kindness, goodness, faithfulness, gentleness, and self-control.

7. The most important thing I learned from my father was ... As a world traveler, my father taught me to expand my horizons and always learn, as well as being cognizant of global human rights issues.
8. My favorite time of day is ... Sunrise. Ironic for an astronomer.
9. My favorite holiday is ... Thanksgiving with all my family.
10. My favorite software application is ... TeXShop, LaTeXiT and BibDesk.
11. Web site I spend the most time on ... Besides the congressional pages, House.gov and Senate.gov, it's the blogs Bad Astronomy and The Intersection.
12. My first real job was ... A janitor for a church
13. The location where I do my best thinking is ... In a beam of sunshine.
14. What I would like to be the world's best at is ... Spelling.
15. I prefer AM or FM radio ... Neither, I listen to online radio with Pandora or Rhapsody. Also, podcasts like DemocracyNow and APM Market Place.
16. I love to ... Be active. Not necessarily a work-a-holic...
17. Something that really annoys me ...Is when meetings start late or run overtime.
18. For physical activity I like ... Hiking, biking, walking, and running outside. I try to stay away from the gym.
19. I make the best ... Partner at card games like Canasta, Rook, and Euchur
20. My favorite city is ... For one I've been to, Bangalore. For the one I haven't visited yet, Rome.
21. My favorite actress is ... Sandra Bullock, since way before she got an Oscar.
22. My favorite athlete is ... I don't pay attention to sports.
23. I used to play ... Guitar.
24. What I really think of Twitter, Facebook, etc. ... I use them and think they are great tools.
25. I think people should ... Participate more in their democracy.

### Member Deaths

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

**Thomas Ahrens**  
**Donald Hunten**  
**Brian Marsden**  
**Michael Preston Merilan**  
**Benjamin Franklin Peery**  
**Malcolm Raff**  
**Allan Sandage**

### 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; 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)

# AAS Member Anniversaries

Annually, we acknowledge and thank our 25 year plus members for their commitment and service to the Society. Anniversaries are listed in five-year increments and according to join dates. If your name was excluded please contact Crystal Tinch (crystal@ aas.org) and your name will be listed in an upcoming issue.

## 25 Years

Aldering, Gregory Scott  
Allen, Ronald J.  
Appleton, Philip N.  
Barlow, Nadine G.  
Bershady, Matthew A.  
Bradley, Paul A.  
Brainerd, Jerome James  
Brown, Leslie F.  
Burnham, Robert  
Carilli, Chris Luke  
Carr, John  
Chambers, Kenneth C.  
Cherry, Michael L.  
Cizdziel, Philip J.  
Clancy, Sean P.  
Cobb, Michael L.  
Crotts, Arlin P. S.  
Doty, Steven D.  
Eggum, Gordon  
Ellis, Richard S.  
Ferguson, Henry Closson  
Finkenzeller, Ulrich  
Flanagan, Kathryn  
Forbes, Terry G.  
Fouts, Gary A.  
Frail, Dale A.  
Gaume, Ralph A.  
Goodman, Alyssa A.  
Greenstein, George S.  
Gunn, James E.  
Gurton, Suzanne  
Hamann, Frederick W.  
Henning, Patricia A.  
Henriksen, Mark J.  
Heyer, Mark H.  
Hines, Dean C.  
Jackson, James M.  
Jahoda, Keith  
Jarrett, Thomas H.  
Johns, Matthew  
Johnson, David Geoffrey  
Jones, Michael D.  
Jordan, Steven P.  
Juda, Michael  
Kenney, Jeffrey D.  
Killen, Rosemary M.  
Kolvoord, Robert A.  
Koratkar, Anuradha P.  
Kunieda, Hideyo  
Lee, Young-Wook  
Leisawitz, David  
Lilje, Per Barth  
Lilly, Simon J.  
Lin, Douglas N. C.  
Lubowich, Donald A.  
MacDonald, James  
Magri, Christopher  
Marcialis, Robert Louis  
Marley, Mark S.  
Mazzarella, Joseph M.  
Merline, William J.  
Meylan, Georges  
Moran, Edward C.  
Mukherjee, Krishna  
Murison, Marc A.  
Murray, Stephen D.  
Narayan, Ramesh  
Nelson, George D.  
O'Dea, Christopher P.  
Okazaki, Atsuo T.  
Orio, Marina  
Pakey, Donald Dean  
Palla, Francesco  
Pearson, Kae Ellen  
Pogge, Richard W.  
Popp, Bruce D.  
Porco, Carolyn C.  
Raine, George W.  
Ratcliff, Stephen J.  
Reach, William T.  
Redmount, Ian H.  
Remillard, Ronald A.  
Rodriguez Espinosa, Jose  
Romani, Roger W.  
Ruotsalainen, Robert W.  
Samec, Ronald G.  
Sandford, Scott A.  
Schiano, Allen V. R.  
Schneider, Glenn  
Schneider, Nicholas M.  
Schneider, Stephen E.  
Seacord, Andrew W.  
Serabyn, Gene  
Shaw, Richard A.  
Shectman, Stephen A.  
Shibazaki, Noriaki  
Simpson, Caroline E.  
Skinner, Steve L.  
Smith, R. Chris  
Sofia, Ulysses J.  
Sowell, James R.  
Spergel, David N.  
Spillar, Earl J.  
Sprague, Ann L.  
Sromovsky, Lawrence A.  
Stacy, J. Gregory  
Stewart, Glen R.  
Strauss, Michael A.  
Szentgyorgyi, Andrew  
Takalo, Leo O.  
Teays, Terry J.  
Teplitz, Doris C.  
Teplitz, Vigdor L.  
Terebey, Susan  
Terndrup, Donald M.  
Timbie, Peter T.  
Tyson, Neil deGrasse  
Wahlgren, Glenn Michael  
Walterbos, Rene A.M.  
West, Michael J.  
Whitlock, Laura A.  
Wisdom, Jack L.  
Wood, Matthew A.  
Woods, Thomas N.  
Wu, Kinwah  
Yanamandra-Fisher, Padma A.  
Zaritsky, Dennis F.  
Zheng, Wei  
Hartkopf, William I.  
Himer, James Thomas  
Hodson, Stephen W.  
Hoeksema, Jon Todd  
Hunter, Deidre Ann  
Kenyon, Scott  
Kipp, Steven L.  
Lacy, John H.  
Lauer, Tod R.  
Lawrence, John K.  
Lepp, Stephen Henry  
Lesyna, Larry  
Locke, Maureen C.  
Maddalena, Ronald J.  
Mansfield, Roger L.  
Meech, Karen Jean  
Meyer, David M.  
Miller, Bryan W.  
Mink, Douglas J.  
Molnar, Lawrence A.  
Paciesas, William Simon  
Patterson, Alan P.  
Priedhorsky, William C.  
Retterer, John M.  
Robinson, Jack H.  
Roellig, Thomas L.  
Schmidtke, Paul C.  
Schombert, James  
Smith, Peter L.  
Sparke, Linda S.  
Stahler, Steven W.  
Stein, John W.  
Stephens, Sally A.  
Stringfellow, Guy S.  
Sutton, Edmund C.  
Sykes, Mark V.  
Tennyson, Peter Donald  
Ukita, Nobuharu  
Uson, Juan M.  
Wawak, Stephen  
Winget, Donald E.  
Ziurys, Lucy M.

## 30 Years

Alcock, Charles  
Baines, Kevin H.  
Bartel, Norbert  
Beck, Sara C.  
Beers, Timothy C.  
Bogart, Richard S.  
Bosma, Albert  
Brucato, Robert J.  
Burrows, Adam Seth  
Caillault, Jean-Pierre  
Calvet, Nuria  
Carroll, Bradley W.  
Caton, Daniel B.  
Cecil, Gerald N.  
Cheung, Cynthia Y.  
Cliver, Edward W.  
Daunt, Stephen J.  
De Robertis, Michael M.  
Dinerstein, Harriet L.  
Dragon, John N.  
Duncan, Douglas K.  
Fabricant, Daniel G.  
Filippenko, Alexei V.  
French, Linda M.  
Goldreich, Peter  
Hardee, Philip E.

## 35 Years

Ake, Thomas B.  
Ambruster, Carol  
Armstrong, John W.  
Bauer, Wendy Hagen  
Bechis, Kenneth P.  
Becker, Stephen A.  
Bhavsar, Suketu P.  
Black, John Harry

Boroson, Todd A.  
Bowell, Edward L. G.  
Cohen, Martin  
Cook, John W.  
Dejaiffé, Rene J.  
Deupree, Robert G.  
Dickey, John Miller  
Dickman, Robert L.  
Dressler, Alan  
Dundee, David Alexander  
Edberg, Stephen J.  
Eilek, Jean  
Fabbiano, Giuseppina  
Forman, William R.  
Forrest, William J.  
Graf, Werner  
Griese, John W.  
Griffiths, Richard E.  
Haas, Michael Robert  
Hansen, Stanley S.  
Hardy, Eduardo  
Harms, Richard J.  
Herbst, Eric  
Hertz, Paul L.  
Hinkle, Kenneth H.  
Holman, Gordon Dean  
Hrivnak, Bruce J.  
Imamura, James N.  
Kazanas, Demosthenes  
Keeseey, Michael S. W.  
Keil, Stephen L.  
Kent, Stephen M.  
Krolik, Julian H.  
Kylafis, Nikolaos D.  
Larson, Stephen M.  
Lin, Robert P.  
Lites, Bruce W.  
Low, Boon Chye  
Luck, R. Earle  
Martonchik, John V.  
McGimsey, Ben Q.  
Misconi, Nebil Y.  
Mouschovias, Telemachos Ch.  
Mushotzky, Richard  
Neff, Susan G.  
Noland, Michael C.  
O'Dell, Stephen L.  
Orton, Glenn S.  
Peterson, Bradley M.  
Pilachowski, Catherine A.  
Robinson, Edward L.  
Rudy, Richard J.  
Rumstay, Kenneth S.  
Schmidt, Gary D.  
Sebok, William L.  
Shull, J. Michael  
Simpson, Richard A.  
Sonneborn, George  
St. Cyr, Orville Chris  
Steigman, Gary  
Stier, Mark T.  
Stiff, Thomas D.

Stoner, Ronald  
Swank, Jean Hebb  
Szkody, Paula  
Torrence, Geoffrey W.  
Turnshek, Diane Elaine  
Van Riper, Kenneth Alan  
Vogt, Steven S.  
Vrba, Frederick John  
Vrtilek, Jan M.  
Wade, Richard A.

#### 40 Years

Benner, D. Chris  
Berry, Charles L.  
Boeshaar, Patricia C.  
Brown, Larry W.  
Bruhweiler, Frederick C.  
Carleton, Nathaniel P.  
Caroff, Lawrence J.  
Catura, Richard C.  
Cavaliere, Alfonso G.  
Cochran, Vance  
Crane, Patrick  
Crane, Philippe  
Gezari, Daniel Y.  
Giovannelli, Riccardo  
Grindlay, Jonathan E.  
Harris, William E.  
Hawley, Steven A.  
Joyce, Richard R.  
Jura, Michael  
Kennedy, H. D.  
Lamb, Susan A.  
Levine, J. Mark  
Margon, Bruce H.  
McGraw, John T.  
McMillan, Robert S.  
McNeil, Raymond  
Mickey, D. L.  
Murray, Stephen S.  
Petro, Larry D.  
Potter, Andrew E.  
Reed, George  
Rees, Martin J.  
Rickett, Barney J.  
Rieke, Marcia J.  
Rust, Bert W.  
Schmidt, Edward G.  
Shapiro, Stuart L.  
Share, Gerald H.  
Smith, Myron  
Strong, Ian B.  
Walborn, Nolan R.  
Warasila, Robert L.  
Webber, John C.  
Wheaton, William A.  
Wills, Derek  
Woodgate, Bruce E.  
Yeomans, Donald K.  
York, Donald G.

#### 45 Years

Ables, Harold D.  
Arny, Thomas T.  
Arpigny, Claude  
Barnes, Thomas G.  
Brosterhus, Elmar B. F.  
Brown, G. Stanley  
Brownlee, Donald E.  
Burton, W. Butler  
Chapman, Gary A.  
Churchwell, Edward B.  
Clark, George W.  
Cohen, Judith G.  
De Young, David S.  
Dryer, Murray  
Dukes, Robert J.  
Dunham, Joan Bixby  
Frogel, Jay A.  
Glaspey, John W.  
Graham, John A.  
Gudehus, Donald H.  
Gulkis, Samuel  
Gull, Theodore R.  
Harris, Allen J.  
Hobbs, L. M.  
Hudson, Hugh S.  
Jackson, Bernard V.  
Jenkins, Edward B.  
Kahler, Stephen W.  
Kayser, Susan E.  
Kennedy, James R.  
Kirkpatrick, R. C.  
Krienke, O. Karl  
Kulrsrud, Russell M.  
Kutter, G. Siegfried  
Landstreet, John D.  
Larson, Richard B.  
Margrave, Thomas E.  
Marschall, Laurence A.  
McCarthy, Dennis D.  
McKee, Christopher F.  
Milkey, Robert W.  
Moffat, Anthony F. J.  
Osmer, Patrick S.  
Peters, Geraldine J.  
Poland, Arthur I.  
Roger, R. S.  
Rogers, Ernest H.  
Rosendhal, Jeffrey D.  
Rust, David M.  
Sanders, Walter L.  
Sandlin, Glenn D.  
Saslaw, William C.  
Seidemann, P. Kenneth  
Simpson, Erik E.  
Smith, Diane P.  
Soberman, Robert K.  
Thaddeus, Patrick  
Trimble, Virginia L.  
Wagener, C.

#### 50 Years

Acton, Loren W.  
Barrow, Colin H.  
Bookmyer, Beverly B.  
Bracher, Katherine  
Breckinridge, James B.  
Chapman, Robert D.  
Collins, George W.  
Dickel, Helene R.  
Edwards, Terry W.  
Eryurt-Ezer, Dilhan  
Fitch, W. S.  
Franz, Otto G.  
Gibson, James  
Harwit, Martin  
Henry, Richard Conn  
Kaler, James B.  
Kaufman, Michele  
Kinman, T. D.  
Larsson-Leander, Gunnar  
Martin, William C.  
Owen, Tobias C.  
Parsons, Sidney B.  
Sturrock, Peter A.  
Tandberg-Hanssen, E.  
Vandervoort, Peter O.

#### 55 Years

Cohen, Marshall H.  
Elste, Guenther  
Fernie, J. D.  
Franklin, Fred A.  
Gaizauskas, V.  
Jefferies, John T.  
Mathis, John S.  
Meltzer, Alan S.  
Schmidt, Maarten  
Thomas, Norman G.  
van den Bergh, Sidney  
Vandervort, Gordon Lee  
Westerlund, Bengt

#### 60 Years

Arp, Halton  
Baum, William A.  
Bell, Barbara  
Brownlee, Robert R.  
Cox, Arthur N.  
Davis, Robert J.  
Fujita, Yoshio  
Gleim, James K.  
Malitson, Harriet H.

#### 65 Years +

Bidelman, William P.  
Carpenter, Martha Stahr  
Duncombe, R. L.  
Jaffe, M. W.  
Lippincott, Sarah L.  
Steel Lillibridge, Helen

# Committee on the Status of Women in Astronomy

Nancy Morrison, CSWA Webmaster

As AAS President Elmegreen noted in her President's Column in the Sep/Oct *AAS Newsletter*, women and minorities are often underrepresented on invited speaker lists at conferences and workshops, relative to the proportion of researchers in the conference subfield who are women. The AAS, the NSF, and the IAU all have policies encouraging or requiring diversity among invited speakers at conferences that they sponsor or support. This issue is of concern because invitations to speak are important components of the professional records of candidates for promotion and tenure. In addition, invited speakers who are members of underrepresented groups are important role models for members of those groups who attend the conference.

After some discussion (including that in the 25 June 2010 issue of our electronic newsletter, *AASWomen*), the CSWA decided to gather data in order to obtain a meaningful picture of the current situation as it regards women. We invited subscribers to *AASWomen* to submit conferences for inclusion in a table giving percentages of female invited speakers. A list that now includes 36 conferences and workshops held since late 2008 has now been published at: <http://www.aas.org/cswa/percent.html>. That page also includes a statistical summary, which we highlight below.

For comparison, that page also gives some overall demographic data, of which perhaps the most pertinent is that 19% of the full and associate members of the AAS (from whose ranks invited speakers are likely to be drawn) are women. Of course, we recognize that the proportion of women in a subfield is a strong function of the subfield, but those data are not as readily available. We await with interest the results of the work of the recently formed AAS Demographics Committee, which we hope will provide more detailed information.

As of 9 December 2010, the median percentage of invited speakers who are women (“%W”) for the sample of 36 conferences was 19%. One quarter of the conferences had 13% or fewer, and one quarter had 26% or more. Without detailed knowledge of the speaker pools available to conference organizing committees, it is not reasonable to make value judgements in individual cases. Nevertheless, grounds for dissatisfaction can be found at the low end of the distribution and for optimism at the high end.

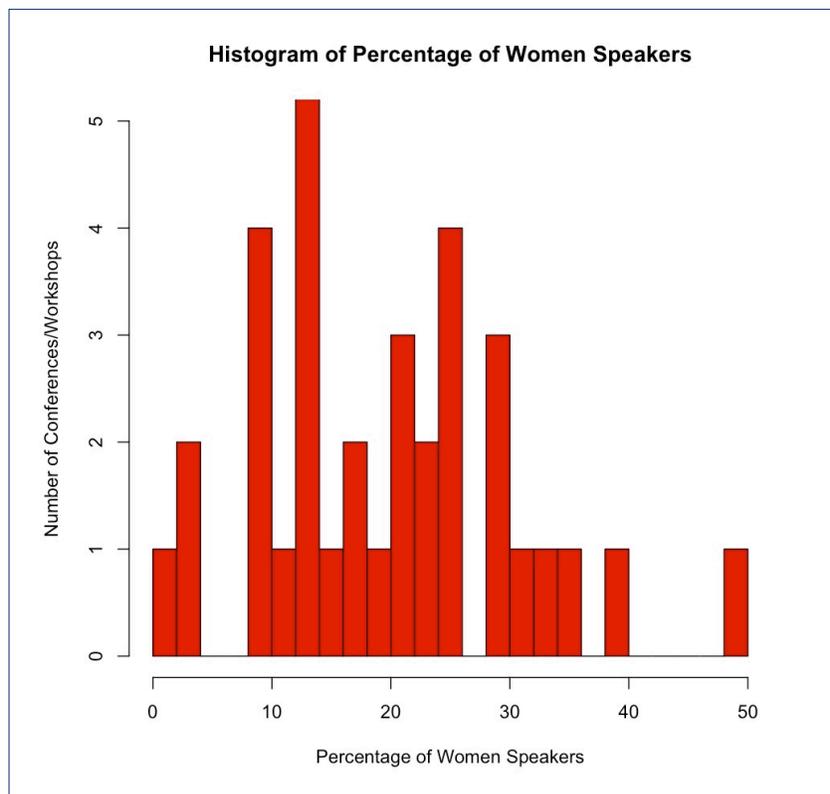
Our list of conferences and workshops is not complete, and we invite further submissions. If you did not attend the conference,

please check the identity and gender of all invited speakers, if necessary by a web search on each person's name. We prefer to receive this information after the conference has taken place, since last-minute changes to invited speaker lists can affect the gender balance.

A concern that is beginning to surface about this listing is that it may be not only incomplete but also unrepresentative. For example, of the two conferences submitted most recently, one was substantially below the median of “%W” and the other substantially above. People may tend

to submit conferences that they consider either exemplary (high %W) or the opposite (low %W).

Please submit a conference, whether or not it is out of the ordinary. Send the number of men and women invited speakers, the conference title, the URL of its web site, its location, its dates, and the name of the chair of its SOC to the CSWA webmaster, Nancy Morrison, [nmorrison@utnet.utoledo.edu](mailto:nmorrison@utnet.utoledo.edu).



# Committee on Employment

Liam McDaid (mcdaidl@scc.losrios.edu)

*This month's column is a guest column by Leila Belkora, a freelance science writer and with UC Irvine. She has her own solution to the problem of designing and creating a career path to follow. Although it is not a complete solution, it is representative of a family friendly solution for many with careers in astronomy. She can be contacted at belkora@cox.net.*

## Beyond Ivory Towers

My career took a non-traditional turn as I finished my Ph.D. in 1995. I had always been interested in science writing and I was offered a great job as an editor in the Office of Public Affairs at Fermilab in Illinois. I figured I would try it out for a year, and would still be able to look for a postdoc position if it didn't work out.

My responsibilities there mainly involved writing about particle physics and astro-particle physics for the public. I was already a good writer but I learned a lot from my boss about writing for the public. (Who knew that "beam" is jargon, and that neutrinos can be scary to the uninitiated?) I had a blast meeting the lab's researchers and technicians and writing about them and their work for FermiNews. I also talked to reporters, showed visitors around and helped write the lab's annual report. I missed being involved in research, but I enjoyed the more social work environment and the writing. My former peers in astronomy were not nearly as negative about my defection as I had feared; that was reassuring too.

After a few years I took a job as science and engineering publicist in the public affairs office of the University of Illinois at Chicago. My main activities were similar to those I carried out at Fermilab, but in my "spare" time I taught physics in the physics department and a history of science class in the Honors College. In retrospect, I was not well-prepared to teach the large introductory physics classes and it was a rather punishing experience, but I loved the small class in the Honors College.

I might have continued on this path for years, but around this time my husband, a particle physicist, got a short-term position at Cornell. I moved with him to Ithaca and decided to write a book during what I thought would be a short leave of absence from my UIC job.

At this point I was still contributing a substantial amount to the family budget because I was lucky enough to have a large advance for my book (a history of astronomy). That soon changed. It took me longer than anticipated to finish the book (it finally appeared in 2002), and with the extension of my husband's position and the anticipated birth of our daughter (2001), I decided to work from home. My contribution to the

family income has been *very modest* ever since, though I have always worked and had interesting jobs.

During our time in Ithaca I not only finished the book, but also wrote articles for popular astronomy magazines and the Cornell Engineering magazine. I taught writing and oral presentation skills to engineers for one semester, filling in for a faculty member on medical leave.

In 2002 my husband left academia for industry and we moved to southern California, where we are now. I tried to get a position teaching writing to engineers, as I had really enjoyed that at Cornell. Instead, I ended up grading papers for the online astronomy program at Swinburne University of Technology in Australia, which turned out to be equally satisfactory. (My title there is "Project Supervisor.") Eventually I was also offered a job that I hadn't even known existed—developing an online physics course through UC-Irvine Extension. My title there is "Subject Matter Expert."

I think the quality of life of our family is enhanced by the fact that I work from home, and I feel privileged to be able to do so. After taking my daughter to school I have about six hours to work. Sometimes I work that whole time (taking an occasional break to throw a load of laundry in the machine); sometimes I deal with emergencies (taking the car to the repair shop seems to occupy a lot of my time lately); and sometimes, I admit, I do something fun like visit a new museum exhibit (though this doesn't happen a lot). I pick up my daughter from school around 2:30, supervise homework, and take her to after-school activities. When my current contract work with UC-Irvine is finished, I hope to resume freelance science writing (assuming our family circumstances allow it).

*The AAS committee on employment exists to help our members with their careers. Your ideas are important, so let's 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 ([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).*

# Scenes from the 42nd DPS Meeting

With more than 1,400 members, the AAS Division for Planetary Sciences (DPS) is the Society's most populous division. Thus it should come as no surprise that the largest DPS annual meetings now attract more attendees than the smallest AAS summer meetings. The 42nd DPS meeting at the Pasadena Convention Center in Southern California, 4-8 October 2010, is a case in point: with 1,042 registrants, it dwarfed the 2010 summer AAS meeting in Miami, Florida, which drew 763 attendees. Without doubt, the DPS annual meeting is the Woodstock of planetary science.

The Pasadena conference featured more than 700 presentations on ground- and space-based studies of objects in our own solar system and others—planetary science now includes research on exoplanets too, of course. Many of the talks and posters concerned new results from space telescopes and robotic planetary explorers, including Kepler, CoRoT, WISE, Herschel, Venus Express, Rosetta, Cassini, and the not-so-small fleets of robots investigating the Moon and Mars. Attendees took advantage of numerous workshops, town halls, local tours, and other activities as well. Some even spent an evening way outside their area of cosmic expertise by attending a taping of the popular TV program *The Big Bang Theory*.

Next year's DPS meeting will be held jointly with the European Planetary Science Congress in Nantes, France. This will surely be the largest gathering of planetary scientists in the history of the solar system.

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



**Left:** Things got off to a flying start with a tour of the Stratospheric Observatory for Infrared Astronomy (SOFIA) at its home base in Palmdale—though the plane remained in its hangar. **Right:** Inside the aircraft, SOFIA chief scientist Eric E. Becklin (UCLA) described the observatory's 2.5-meter telescope, situated behind the cabin's aft bulkhead and instrument interface, seen at left.



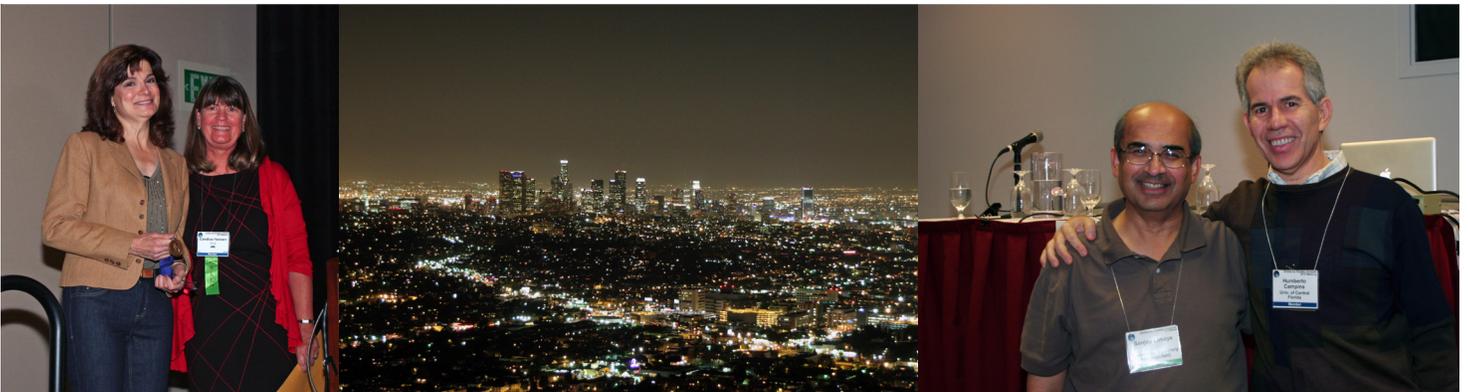
**Left:** Incoming DPS chair Melissa A. McGrath (NASA/MSFC) presented longtime IRTF chief Alan T. Tokunaga (IfA) with the Harold Masursky Award for Meritorious Service to Planetary Science. **Middle:** At the first of five daily press conferences, Linda J. Spilker (NASA/JPL/Caltech) presented stunning images from Cassini's ongoing exploration of the Saturn system. Philip D. Nicholson (Cornell) showed evidence for a narrow "crack" in Saturn's C ring, and Dennis L. Matson (JPL) showed how bubbly subsurface seawater helps account for the plumes erupting from Enceladus. **Right:** Outgoing DPS chair Candice Hansen (PSI) presented the Jonathan Eberhart Planetary Sciences Journalism Award to George Musser (Scientific American). All photos by Rick Fienberg, © 2010 AAS.



**Left:** During a tour of JPL, attendees got to watch as “bunny-suited” technicians worked on assembling the Curiosity rover. If all goes according to plan, the robotic arm at right will be examining the Martian surface up close beginning in August 2012. **Middle:** WISE guys James M. Bauer and Amy K. Mainzer (both JPL) gave journalists a peek at some of the interesting solar-system objects being picked up during the mission’s all-sky infrared survey. At the same briefing, Alex H. Parker (Univ. of Victoria) showed how the prevalence of wide binaries in the trans-Neptunian region constrains the dynamical history of the Kuiper Belt. **Right:** The Harold C. Urey Prize for outstanding achievement in research by a young scientist went to Jonathan J. Fortney (UCSC) for his work on planetary atmospheres.



**Left:** Europe’s Venus Express has been orbiting our sister world for more than four years. Hakan Svedhem (ESA/ESTEC) briefed reporters on the mission’s latest discoveries, including new evidence of recent volcanism. At the same press conference, Stephen C. Tegler (Northern Arizona Univ.) showed that the surface of Eris, like that of Pluto, appears to be dominated by nitrogen ice. **Middle:** Melissa McGrath presented the Gerard P. Kuiper Prize to Jeffrey N. Cuzzi (NASA/ARC) for his pioneering work on rings and disks. **Right:** William J. Merline (SwRI) and Sarah Hörst (Univ. of Arizona) joined DPS press officer Sanjay Limaye (Univ. of Wisconsin) for Thursday’s press conference. Merline compared his ground-based images of asteroid 21 Lutetia with close-ups from the Rosetta flyby, while Hörst described her thesis research showing that the building blocks of life might arise naturally in Titan’s atmosphere. Hörst’s work got more media coverage than anything else at the meeting.



**Left:** Carolyn C. Porco (CICLOPS/SSI) shows off the Carl Sagan Medal she just received from Candy Hansen for her outstanding communication with the public. **Middle:** Seen at night from Griffith Observatory’s hilltop perch, the lights of Los Angeles are as beautiful as they are bad for astronomy. **Right:** For his last official duty after six years as DPS press officer, Sanjay Limaye presided over a briefing by Humberto Campins (Univ. of Central Florida), who told reporters about his detection of water ice on asteroid 65 Cybele and his determination that 2 Pallas is the parent body of asteroid 3200 Phaethon as well as the Geminid meteors.

## News from JWST

### The James Webb Space Telescope and the Decadal Survey

By John Mather and Jonathan Gardner, NASA's Goddard Space Flight Center

The James Webb Space Telescope was conceived in 1995 as the next astrophysics flagship after the four Great Observatories (Compton-GRO, Hubble, Chandra, and Spitzer). With its 6.5 m cold telescope, and cameras and spectrometers covering the whole range from 0.6 to 28 microns, Webb will push far beyond the limits of what Hubble and Spitzer can see. The Great Observatories were complementary with each other and with ground-based telescopes; so Webb will complement the next generation of ground telescopes and the space missions of the next decade. Webb's scientific potential is even richer than it was in 1995, now that we know the expansion history of the universe, the influence of dark energy and dark matter, the cosmological distances to gamma ray bursts, and the existence of hundreds of exoplanets, including many candidates for transit spectroscopy. Webb is about the beginnings of everything: the universe, the stars and galaxies, planets, and life. Over 8500 astronomers have used the HST and its data archives, and thousands of observers will use Webb to push the limits of science.

Webb was the highest priority for large space missions in the 2001 decadal survey. It plays an equally important role in the 2010 decadal survey, *New Worlds, New Horizons in Astronomy and Astrophysics* (NWNH), providing the scientific foundation for the recommended missions. NWNH identified three science themes for the next decade: Cosmic Dawn, searching for the first stars, galaxies and black holes; New Worlds: seeking nearby, habitable planets; and Physics of the Universe: understanding scientific principles. As discussed in the survey, Webb will play a critical role in the first two science themes and a strong supporting role in the third.

Webb's role in the Cosmic Dawn theme provided the original motivation for a large infrared-optimized observatory in the mid-1990s. Simulations, supported by Hubble and Spitzer observations, suggest that the first galaxies were relatively small and that the giant galaxies observed today grew by successive mergers. The formation of the first star clusters that would eventually become galaxies will be reachable by ultra-deep surveys with Webb (NWNH page 7-5). Observing in the infrared, Webb will observe the rise of galaxy morphology and chemical evolution in the familiar rest-frame optical from the epoch of reionization at  $z=6$  to the present. It will enable follow-up by ALMA, GSMT, International X-ray Observatory (IXO) and the other facilities recommended by NWNH.

The search for life around other stars, discussed in the New Worlds theme in NWNH, will be a multi-stage process. Webb will "take the first steps" along this path (NWNH page 2-2),

providing both a scientific and technological groundwork for the complex and specialized instrumentation that will follow. Astronomers in the 17th, 18th and 19th centuries used transits to learn the properties of Venus and Mercury. Today, astronomers using Hubble, Spitzer and Kepler have rediscovered the power of transits to characterize exoplanet sizes, masses and even atmospheric constituents. Webb will extend this to study the properties of smaller rocky planets, cousins of the Earth. With near- to mid-infrared coronagraphic imaging of the young circumstellar disks in which planets form, Webb will complement longer-wavelength observations by ALMA and the high spatial and spectral resolution that could be provided by GSMT, if fitted with high-contrast adaptive optics instrumentation.

Webb has a complementary role to play in the Physics of the Universe theme. Mid-infrared spectroscopy will reveal the energy sources in super-massive black holes. Black hole masses will be measured by Webb and ground-based optical and radio telescopes (NWNH 2-18.) Working in tandem with WFIRST, Webb can look for evolutionary effects in type Ia supernovae and use masers to constrain  $H_0$ .

Webb is currently under construction—it is not just a paper telescope. All of the flight detectors have been completed and selected, and they are the best ever built, with read noise of a few electrons, and dark current of a dozen electrons per pixel per hour. One of the flight instruments, the near IR spectrometer (NIRSpec) is complete and has passed its vibration test. The three other instruments are on track for completion by summer of 2011. The carbon fiber structure that holds the instruments in precise alignment passed its cryogenic distortion test (in the same chamber we used for the COBE satellite). And the most difficult items of all, the beryllium mirrors for the telescope, have all been polished at room temperature and measured at the operating temperature of about 40 Kelvin; 5 of the segments have been coated with the final reflective surface. All of the mirror segments will be finished by summer 2011. These mirrors meet their performance specifications, so the image quality of the observatory will be diffraction-limited at 2 microns wavelength.

Only some of the spectacular scientific results to come from Hubble and Spitzer were anticipated before launch. We expect the same to be true of Webb. Its most important discoveries will come from the ingenuity of the astronomical community, combined with the ability of the universe to continue to surprise us as we examine its secrets. The scientific promise of Webb is worthy of its role in the 2001 and 2010 decadal surveys!

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

James Manning, Executive Director

## Connecting People to Science

*Eventually everything connects - people, ideas, objects. The quality of the connections is the key to quality per se.*

Charles Eames

We spend an awfully lot of time seeking connections in our lives—with people, institutions, data, ideas, philosophies—all of the things that link us to the world and each other. And much of what we do professionally, being predisposed to a scientific perspective, is to seek and share the connections we find in the natural world that help us to explain it—to ourselves and to others.

But a lot of people have lost that ability to connect, for lots of reasons. Consider the night sky: many urbanites have let that link atrophy because the quality of the connection—the dark night sky—has been lost. Consider science literacy: in an anti-intellectual age where the quality of science education is often less than it needs to be, science becomes foreign and spooky and unintelligible; many people just don't connect with it at all.

This is of course a problem we all recognize, and many good people are working hard to reestablish the quality of the connection—between teacher and student, between scientist and “civilian,” between science and the public.

The ASP, with partners and sponsors soon to be enumerated, thinks it's a good idea to bring these good people together to make some connections of their own, and we plan to do so in a national EPO conference in conjunction with the ASP annual meeting that will bring together scientists, teachers, informal

educators, EPO professionals, science communicators, and others to learn, share, and forge collaborations to help us connect people to science in ways that improve science literacy, spark career aspirations, and generally improve the public perception of science.

“Connecting People to Science” will be our theme, and we will gather in Baltimore, July 30 through August 3, 2011, to support each other in this noble goal. We will convene at the Tremont Plaza Hotel, a few blocks north of Baltimore's Inner Harbor in the city's downtown area and close to restaurants and attractions. The conference proper will be held Monday through Wednesday, 1-3 August, with special events the preceding weekend, 30-31 July. Conference sessions will take place in the completely restored Baltimore Masonic Temple building, providing a unique and beautiful setting for learning what's up, sharing our experience and results, improving our practice, and making connections with each other across science disciplines.

We hope you will mark your calendars for this hands-on, intellectually stimulating meeting for everyone involved in science, science education and public outreach. Check our meeting web site (<http://www.astrosociety.org/events/meeting.html>) to keep abreast of announcements as the meeting develops.

Charles Eames noted that everything eventually connects, and it's the quality of the connection that determines the quality of the experience. Come to Baltimore next summer to forge quality connections with your colleagues and advance our combined efforts to create a science-literate and science-rich future. We will look for you there!

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

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

### FY 2011 Budget and Proposal News

At this writing (early December), the Federal government is operating under its second Continuing Resolution for this year, due for expiry on 18 December. Hence we do not yet know the AST budget for Fiscal Year (FY) 2011, and in fact are no more knowledgeable than those in the community who keep up with articles and notices in the press. Because we are already several months into the new FY, we expect to be conservative in making awards for supplements, and are funding our national facilities for only part of the year, until the budget situation is clarified. We will go ahead at the end of the January with our offers for Astronomy and Astrophysics

Postdoctoral Fellowship (AAPF) awards in order to keep these offers consistent with the desired February 15 target date for decisions by candidates.

The primary AST proposal deadlines for FY 2011 have now passed. We note that the number of proposals to the general Astronomy and Astrophysics Research Grants (AAG) program has increased from ~610 proposals in FY 2010 to ~720 proposals in FY 2011. This increase of ~18% is approximately equal to the increased funding that Astro2010 recommended for the AAG program for the entire decade from 2010 to 2020. Similarly, over the two years from FY 2009 to FY

2011, the numbers of proposals to the AAPF and Advanced Technologies and Instrumentation (ATI) programs have increased ~40% each. In the face of these rapid increases in demand, proposers should be aware that it is not possible to maintain past proposal success rates even in the most optimistic budget scenarios.

### AST Staff News

In November and December, we concluded the interview process for the permanent position as Deputy Division Director and for two program officers in rotator positions. We hope to be able to announce the identities of the new staff members in January or February.

### Data Management Plan

Potential proposers are reminded that all NSF proposals submitted or due on or after 18 January must include a required data-management supplement of up to two pages, which will be subject to the normal merit review process.

Please see <http://www.nsf.gov/div/index.jsp?div=AST> for advice to proposers on the contents of this supplement. Note especially that this applies to the Cyber-enabled Discovery and Innovation and the Major Research Instrumentation programs (see [http://www.nsf.gov/publications/pub\\_summ.jsp?org=NSF&ods\\_key=nsf11502](http://www.nsf.gov/publications/pub_summ.jsp?org=NSF&ods_key=nsf11502) and <http://www.nsf.gov/od/oia/programs/mri/>). Deadlines for both of these programs are in late January, at approximately the same time this AAS newsletter is scheduled for release.

### Catalyzing New International Collaborations

The NSF Office of International Science and Engineering has issued a new solicitation, “Catalyzing New International Collaborations,” which is intended to support the exploratory phase of an international collaboration that may lead to a follow-on proposal for funding of the collaborative research. The first due date for this opportunity is 1 March 2011. For further information, please see [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=12815](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12815).

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## Announcements

### International Research Experience for US Graduate Students (IRES)

This program is administered by the National Solar Observatory (NSO), sponsored by the National Science Foundation’s (NSF) Office of International Science and Engineering (OISE), and is open to US graduate students in any discipline of astronomy or astrophysics who are US citizens or permanent residents, age 21 years or older, and have a passport. The main goal of the program is to expose potential researchers to an international setting at an early stage in their careers. The program will take place in Bangalore, India, under the auspices of the Indian Institute of Astrophysics (IIA), a premier national center devoted to research in astronomy, astrophysics and related physics.

The program supports up to six summer research positions for eight weeks starting 13 June 2011 (this start date is firm and does not include travel time). For each participant, the program will provide a stipend of US \$500 per week, round-trip air travel to/from India, accommodation, miscellaneous travel (field trips), incidental expenses, and medical expenses/insurance.

Additional information and application materials are available on the Web at <http://eo.nso.edu/ires/>. All application materials must be received by 4 February 2011.

### NSO Observing Proposal Deadline

The current deadline for submitting observing proposals to the National Solar Observatory is 15 February 2011 for the second 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.

to be split between NASA and the Dept. of Energy (DOE). In FY2011, NASA has been appropriated its share, but DOE will not get its share. The reasoning is that NASA should pay for the costs of production since it will be the primary user of Pu-238.

NASA's share of \$15 million may get the ball rolling on Pu-238 production, however funding the program through NASA comes at the price of delaying or not flying some planetary space missions. Although, without Pu-238, some planetary space missions will cease.

Restarting Pu-238 is critical for the planetary science community because it is the only viable power source for planetary spacecraft in deep space or for missions on Mars, the Moon, and asteroids where solar power is not an option. NASA is able to power only three spacecraft with the current supply of Pu-238 including the remaining purchase from Russia, which must be renegotiated now due to the stoppage of US production. Renegotiation with Russia could take years and the delay will be detrimental to the United States planetary science research. The results of the Planetary Science Decadal survey are unclear without the immediate restart of Pu-238 production. The Astronomy and Astrophysics Advisory Committee (AAAC), who advises the NSF, NASA, and DOE on issues of mutual concern and interest, wrote a letter urging restart of Pu-238 address to leaders in the Executive administration, Congress, and key agencies. This is not because planetary science falls under their purview, but because a potential future line of development for astrophysics missions enabled by Pu-238 and the steady electrical energy it can provide would be impossible to even contemplate without a restart.

The Independent Comprehensive Review Panel report on the James Webb Space Telescope (JWST), led by John Casani of NASA's JPL, has been released. The successor to the Hubble Space Telescope will cost an extra \$1.5 billion and is now predicted to launch in September 2015, over a year later than the original date of June 2014. An extra \$250 million per year in 2011 and 2012 is needed in order to make the 2015 launch date.

The management of JWST has moved to NASA Headquarters. NASA Administrator Charles Bolden released a statement on 10 November saying,

"No one is more concerned about the situation we find ourselves in than I am, and that is why I am reorganizing the JWST Project at Headquarters and the Goddard Space Flight Center, and assigning a new senior manager at Headquarters to lead this important effort. The new JWST program director will have a staff of technical and cost personnel provided by the Science Mission Directorate and report to the NASA associate administrator. This will ensure more direct reporting

to me and increase the project's visibility within the agency's management structure. Additionally, the Goddard Space Flight Center's project office has been reorganized to report directly to the center director. That office is undergoing personnel changes to specifically address the issues identified in the report."

Richard Howard, NASA's deputy chief technologist, will head the new division for JWST. Howard's first order of business will be making a new budget for JWST by Feb. 2011. The NAC Astrophysics Subcommittee meets on 22 December to discuss JWST.

President of the AAS, Debra Elmegreen, wrote in an op-ed in *Space News* saying, "What's at stake here are not just the missions the division is already pursuing (limited already due to the cost of JWST) but the next decade's priority activities and the U.S. leadership in astrophysics." Currently, JWST is about 40% of the NASA Astrophysics Division budget, which prevents development on the missions recommended but the Astro2010 Decadal Survey. The decade may be halfway over before the first large-scale space based recommendation, the Wide-Field Infrared Survey Telescope (WFIRST), goes into development.

Congressional Visits Day is on 6-7 April 2011. We have a full list of participants who volunteered after the announcement went out in a recent AAS Informational Email. The Science Engineering Technology Work Group (SETWG) puts CVD together, an information network comprised of professional, scientific, and engineering societies, higher education associations, institutions of higher learning, and trade associations who are concerned about the leadership role of the US in science, mathematics and engineering. Thank you for volunteering.

Jack Burns, from the University of Colorado at Boulder, is the new chair of the AAS Committee on Astronomy and Public Policy (CAPP). Burns has graciously agreed to fill out John Huchra's term as CAPP chair.

CAPP has agreed to endorse a letter sent to all members of the Senate, urging passage of the America COMPETES Act reauthorization this year. CAPP has also endorsed a letter on supporting the DOE's Office of Science. Both letters will be available online at the AAS website or the AAS Policy Blog.

[Note: COMPETES passed, see [www.aip.org/fyi/2011/003.html](http://www.aip.org/fyi/2011/003.html).]

# Calendar of Events

## AAS & AAS Division Meetings

### 42nd Division on Dynamical Astronomy Annual Meeting

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

Abstract deadline: 28 February 2011.  
Student stipend award application deadline:  
13 February 2011 (<http://dda.harvard.edu/ddastip11.html>)

## Other Events

### Telescopes from Afar: An international conference on remotely operated, automated or ground telescopes

28 Feb-3 March 2011, Waikoloa Beach  
Marriott, Hawaii  
[tfaloc@cft.hawaii.edu](mailto:tfaloc@cft.hawaii.edu)  
<http://tfa.cft.hawaii.edu/>

### The Prompt Activity of Gamma-Ray Bursts: their Progenitors, Engines, and Radiation Mechanisms

5-7 March 2011, Raleigh, NC  
Davide Lazzati ([davide\\_lazzati@ncsu.edu](mailto:davide_lazzati@ncsu.edu))  
[http://grb.physics.ncsu.edu/GRB\\_2011/WEB/](http://grb.physics.ncsu.edu/GRB_2011/WEB/)

**\*Building on New Worlds, New Horizons**  
7-10 March 2011, Santa Fe, NM  
Joseph Lazio ([laziojoseph@gmail.com](mailto:laziojoseph@gmail.com))  
<http://science.nrao.edu/newscience/>

**\*Resolving the Future of Astronomy with Long-Baseline Interferometry**  
28-31 March 2011, Socorro, NM  
on the New Mexico Tech Campus  
Michelle Creech-Eakman  
([workshop@mro.nmt.edu](mailto:workshop@mro.nmt.edu))  
<http://www.mro.nmt.edu/workshop/>

**\*Star Formation across Space and Time: Frontier Science with the LBT and Other Large Facilities**  
31 March-3 April 2011, Tucson, AZ  
Xiaohui Fan ([fan@as.arizona.edu](mailto:fan@as.arizona.edu))  
<http://medusa.as.arizona.edu/lbto/LBT%20Conference/index.html>

### Signposts of Planets

12-14 April 2011, Greenbelt, MD  
Marc Kuchner  
([Marc.Kuchner@nasa.gov](mailto:Marc.Kuchner@nasa.gov))  
<http://science.gsfc.nasa.gov/667/conferences/signposts.html>

**IAU Symposium 279 - Death of Massive Stars: Supernovae & Gamma-Ray Bursts**  
18-22 April 2011, Nikko, Japan  
Pete Roming ([proming@swri.edu](mailto:proming@swri.edu))  
<http://www.hp.phys.titech.ac.jp/iau279>

**\*A Decade of Exploration with the Magellan Telescopes**  
25-28 April 2011, Pasadena, CA  
John Mulchaey  
([magellan10@obs.carnegiescience.edu](mailto:magellan10@obs.carnegiescience.edu))  
<http://magellan10.obs.carnegiescience.edu/>

**42nd Canadian Astronomical Society Meeting**  
30 May-2 June 2011, London, Ontario  
Sarah Gallagher ([sgalla4@uwo.ca](mailto:sgalla4@uwo.ca))

**\*Frontier Science Opportunities with the James Webb Space Telescope**  
5-8 June, Baltimore, MD  
Massimo Stiavelli ([mstiavel@stsci.edu](mailto:mstiavel@stsci.edu))  
<http://www.stsci.edu/institute/conference/jwst2011>

**Exploring Strange New Worlds: Gas Giants to Super Earths**  
1-6 May 2011, Flagstaff, AZ  
Charles Beichman ([Charles.A.Beichman@jpl.nasa.gov](mailto:Charles.A.Beichman@jpl.nasa.gov))  
[StrangeNewWorlds@ipac.caltech.edu](mailto: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](mailto: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  
Aantha Cooray ([acooray@uci.edu](mailto: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](mailto:rblum@noao.edu))  
<http://www.lna.br/FISSS2011/>

**\*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](mailto: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**  
5-7 June 2011, Jackson Lake Lodge, Grand Teton National Park  
Massimo Stiavelli ([mstiavel@stsci.edu](mailto:mstiavel@stsci.edu))  
<http://www.stsci.edu/institute/conference/jwst2011>

**8th International Planetary Probe Workshop**  
6-10 June 2011, Norfolk, VA  
David H. Atkinson ([atkinson@uidaho.edu](mailto:atkinson@uidaho.edu))

**\*Very Wide Field Surveys in the Light of Astro2010**  
13-16 June 2011, Baltimore, MD  
[widfield2011@pha.jhu.edu](mailto:widfield2011@pha.jhu.edu)  
<http://widfield2011.pha.jhu.edu/>

**\*Statistical Challenges in Modern Astronomy V**  
13-17 June 2011, University Park, PA  
Eric Feigelson ([edf@astro.psu.edu](mailto:edf@astro.psu.edu))  
<http://astrostatistics.psu.edu/scma5>

**Stellar Polarimetry: Birth to Death**  
27-30 June 2011, Madison, WI  
[starpol@etsu.edu](mailto:starpol@etsu.edu)  
<http://arwen.etsu.edu/starpol>

**\*International Summer Institute for Modeling in Astrophysics (ISIMA) 2011**  
27 June-5 August 2011, Santa Cruz, CA  
Pascale Garaud ([pgaraud@ams.ucsc.edu](mailto: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

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

**4th Kepler Asteroseismic Science Consortium Workshop**  
11-15 July 2011, Boulder, CO  
Travis Metcalfe ([travis@hao.ucar.edu](mailto: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  
Dr Nicole St-Louis ([stlouis@astro.umontreal.ca](mailto: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](mailto: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>

**\*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)

\*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@aaas.org](mailto:crystal@aaas.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).

## IAU Symposium No. 277: Tracing the Ancestry of Galaxies (on the land of our ancestors)

[Ed Note: this piece is being included as a service to the IAU.]

The IAU Symposium No. 277 was held in Ouagadougou from 13-17 December. This was the first IAU Symposium held in sub-Saharan Africa (outside South Africa). Nearly 100 participants gathered in Burkina Faso from all the continents. This Symposium was the opportunity to examine the possible links between nearby, mature galaxies and the distant objects that our deepest extragalactic surveys now routinely uncover. Major open questions pertaining to the evolution of these objects into the galaxies we see today were addressed and confronted to theoretical models of galaxy formation and evolution. In recent years, the multi-wavelength mapping of galaxies has enabled a new vision of their structure and composition that may, or may not, be compatible with theoretical precepts.

One legitimate question to ask was: can we really apply the knowledge gained from low-*z* studies to the high-*z* galaxy populations, in view of the strong apparent differences in observed properties? Or do we still have to rely heavily on models/simulations, often based on simplified and likely inadequate recipes for the complex and poorly constrained physical processes involved to interpret high-*z* observations? With the next generation of facilities coming on line worldwide or in final design stage (e.g. Atacama Large Millimeter Array, Extremely Large Telescopes, James Webb Space Telescope, Large Synoptic Survey Telescope, Square Kilometer Array, etc.) that will allow us to probe galaxies at redshifts  $z=1$  or beyond with similar precision as in the local Universe, the time was right to assess the current status of the field.

This Symposium brought together theorists and observers in an attempt to reach a common understanding of the puzzles that our research has recently unfolded, largely through the study of galaxy dynamics and their stellar populations at low and high redshifts. With Meerkat (Karoo Array Telescope) and Salt (South African Large Telescope) coming into operation in South Africa and Astrophysics being developed in Burkina Faso, it seemed timely to hold such a meeting in Africa, especially following the IYA and the resolution of the 2009 IAU General Assembly asking to support the development of Astronomy in emerging countries.

While the Symposium was going on at the Hôtel Indépendance, there was an IAU/TAD (TAD: Teaching Astronomy for Development) workshop held at the Université de Ouagadougou to form 50 secondary school teachers (1 per province and 5 from Ouaga). Michèle Gerbaldi (IAP), Rosa Maria Ros (Catalunya), Jean-Pierre de Grève (Brussel), Ed Guinan (Vilanova) and Katrin Kolenberg (Wien) gave the two days workshop. There was also a parallel two days workshop to put together the basis of the African Astronomical Society (AfAS) that should be launch in a few months. The Symposium attendees also participated in outreach activities such as three public talks and seven visits to schools in Ouagadougou. We can say that this first IAU Symposium in sub-Saharan Africa (outside SA) was a great success.



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## Newsletter 156 January/February 2011

### Washington News

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



As the Republican Party prepares to take over the House of Representatives the Democrats are struggling during the lame duck session in the debates on tax cuts, reducing the deficit, passing continuing resolutions to fund government agencies and an omnibus spending bill. But, first, a recap of the November 2010 General Elections:

In the Senate the Democrats are still in the majority. In the Democratic Party, of the 19 seats that were up for election, six were lost to the Republican Party. The seats that switched parties were in the states of Arkansas, Illinois, Indiana, North Dakota, Pennsylvania, and Wisconsin. The Republican Party kept the 18 seats up for election. In the 112th Congress the Senate Democrats total 51 and the Republicans total 47.

In the House of Representatives all 435 seats were up for election. The Republican Party gained 63 seats in over 30 states. In the 112th Congress the House Republicans have the majority at a total of 242 and the Democrats total 192 (one seat is vacant).

What does this change in Congress mean for science? The funding for science can be an easy target as politicians look for ways to save money. The President has proposed a plan to double the budget for the National Science Foundation

(NSF) over the next ten years. However, politicians such as the Republican House science committee member Adrian Smith of Nebraska are calling on the public to decide which NSF research grants are wasteful. This is part of a movement started by the Republican Whip, Eric Cantor, called YouCut Citizen Review<sup>1</sup>. The instructions are to go to the NSF website and “try some keywords, such as: success, culture, media, games, social norm, lawyers, museum, leisure, stimulus, etc.” then submit on the website the award number of the grant believed to be wasteful.

Chris Mooney, author, speaker, and blogger at the Discover blog The Intersection asks, “Why does Rep. Smith think that this approach—let’s call it the ‘citizens Googling’ method—is a good way of evaluating research grants, as opposed to the merit-based peer review system?” Citizen Googling is contradictory to the goal of reducing wasteful spending. Peer review by experts is designed to ensure that the most promising science receives federal funding.

Efforts to secure appropriations for the restart of Plutonium-238 production are ongoing. In the FY2010 budget report Congress wanted the cost of \$30 million to restart production

<sup>1</sup>(<http://republicanwhip.house.gov/YouCut/Review.htm>), accessed on 3 December 2010