

AAS Newsletter

July/August 2011, Issue 159 - The Online Publication for the members of the American Astronomical Society



Table of Contents

President's Column	2	2011 Chrétien Grant Winner	11
From the Executive Office	4	IAU Membership Deadline	11
Secretary's Corner	5	Highlights from the Hub of the	
Council Actions	6	Universe	12
Journals Update	8	SPD Meeting	23
25 Things About...	9	Washington News	Back Page



American Astronomical Society

AAS Officers

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

Councilors

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

Executive Office Staff

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

AAS Newsletter

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

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

Items of general interest to be considered for publication in the *AAS Newsletter* should be sent to crystal@aas.org. Appropriate pictures are welcome. For information about deadlines and submitting articles, see 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.

Front Cover

Sharpless 2-188 (Sh2-188). Image credit: T.A. Rector/University of Alaska Anchorage, H. Schweiker/WIYN and NOAO/AURA/NSF

President's Column

Debra Meloy Elmegreen, president@aas.org



We hit a homerun in Boston with one of our biggest summer meetings ever, including over 1300 registrants; still, it had the more intimate feel that characterizes our summer gatherings. It was a privilege to share our 218th meeting with the American Association of Variable Star Observers on the occasion of their 100th anniversary, and to present them a certificate to commemorate the long-time professional-amateur collaboration we have all enjoyed. Margaret Geller gave a stirring Henry Norris Russell Lecture on her discovery of large-scale structure in the Universe.

Malcolm Longair challenged us with his Kavli Lecture on decadal surveys of the future; we also had the privilege of awarding him an honorary AAS membership. The meetings-in-meetings that are an AAS summer trademark were highly enjoyable, along with the workshops, Town Halls, plenary talks, and special sessions, including a memorable session paying tribute to John Huchra. The elegant opening reception, complete with ice cream-filled Red Sox hats, and the first-time-ever closing reception, with moose stuffed animals and door prizes to whet our appetite for next summer's meeting in Anchorage, were rousing successes. The vibrant conference reflected the careful scientific program planning led by our Vice Presidents Christine Jones and Lee Anne Willson. It was also a very well executed meeting, thanks to the skillful planning of the AAS Staff, led by Director of Meeting Services Kim Earle and Executive Officer Kevin Marvel.

In talking with many colleagues in the weeks leading up to the meeting, I realized that most of the AAS membership does not have a clear view of the operations of the AAS Council, since the work happens behind the scenes. Much effort goes on year-round, and it's not just about preparing for the winter and summer meetings or about publications, though those are two of the top priorities of the AAS; we have many other goals too. So I wanted to give you a glimpse of Council efforts while reporting on some exciting new initiatives that we just approved in Boston. Prior to each winter and summer meeting, Council spends the weekend in strategic planning and business meetings. In the fall, the Executive Committee—the senior officers—also meets to plan and to discuss interim issues, which can be acted on throughout the year.

Incoming councilors receive material and briefings on the AAS and on non-profit organizations in general. We continue to receive training and advice while on Council to help improve the effectiveness of our AAS leadership. In late March, Kevin Marvel, Secretary Fritz Benedict, and I attended the Assembly of Society Officers meeting with about three dozen officers from

AIP-affiliated societies to discuss scientific literacy, public engagement in policy issues, communication of science, and the value of professional societies. Some of these issues are at the heart of the AAS Mission and Vision Statement (http://aas.org/about/mission_and_vision), our Strategic Plan, and our goals for the next five years (http://aas.org/about/strategic_plan). Our AAS visions are reflected in our priorities: publications, meetings, public policy and advocacy, astronomy education, and other member services involving our committees and prizes. At the AAS strategic session in Boston, Council discussed specific short-term as well as long-range tactical efforts directed towards our strategic goals. We also worked to hone metrics that we began developing at the strategic session in Seattle last January, to help us assess how well we are meeting our broad AAS objectives. In addition, we discussed a presentation by Phoebe Leboy and Alice Popejoy from the Association for Women in Science about how to be aware of and work around potential biases in awards given by professional societies; these guidelines were passed along to the Prize Committee chairs as well.

The AAS is in better fiscal shape than it has been in many years, thanks to the careful planning and extensive efforts by Kevin Marvel, Treasurer Peter Stockman, and the Budget Committee, and to changes associated with publishing the *Astrophysical Journal* and *Astronomical Journal* through the IOP. Council approved a Strategic Initiatives Fund that will enable us to start new activities that will further our AAS goals. Three new initiatives this year will be: (1) an intensive lobbying effort by many of our members, which Kevin and Bahcall Fellow Bethany Johns will be reporting in detail, (2) an Astronomy Ambassadors program that will engage upper level undergraduates and early graduate students in local K-12 outreach following some training on best practices, and (3) a revamped AAS website to enhance communications with our membership and the public. These new initiatives directly relate to some of our key priorities of policy advocacy, mentoring and training future generations of astronomers, and communicating science to the public. The Astronomy Ambassadors program is under development by Education Coordinator Rick Fienberg, with input from Education Officer Tim Slater and the Astronomy Education Board.

The subject of public outreach has become a renewed hot topic for science in general, following a report issued recently by the National Academies, in which the US is found to be near the bottom of wealthy countries in the proportion of college students with degrees in science or

engineering. Scientists nationwide are urged to become engaged in efforts to help foster an interest in STEM fields for our young people and to contribute to the improvement of scientific literacy of the public (which is at the 25% level). The “Change the Equation” initiative by Scientific American and Nature Publishing Group has led to the “1000 scientists in 1000 days” project, in which scientists sign up for local outreach with teachers; check out their web pages to see how you can get involved: http://www.nature.com/nature/journal/v473/n7346/full/473123a.html?WT.ec_id=NATURE-20110512 and <http://www.scientificamerican.com/page.cfm?section=calling-all-scientists>.

Also at the Council meeting, Rick Fienberg announced a revamping of the AAS Shapley Lecture Program, including a proactive approach (with the help of the Committee on the Status of Minorities) to reach out to schools with large populations of under-represented minorities and also perhaps to deliver some lectures in Spanish where appropriate. We will announce new procedures for applying to be or to host a Shapley Lecturer in the near future.

In another action, Council responded to a request from the Working Group on Laboratory Astrophysics, which has existed since May 2007, by establishing an Organizing Committee for Laboratory Astrophysics. Their charge is to draft by-laws as they move towards becoming a new Division of Laboratory Astrophysics, which will be considered at the January Council meeting in Austin.

Council is always receptive to input from the AAS membership on what we might do to improve meetings and to facilitate other goals, so in Boston we carefully considered suggestions we had received. One discussion led to the formation of a Working Group on the LGBT community, including a webpage on the AAS website. Their purpose will be to help focus on LGBT issues in which the AAS might play a role. Along those lines, Council voted to amend By-Laws Article X, Non-Discrimination in Professional Activities, to have more inclusive language. This practice has been followed by many universities and state governments, on the grounds that categories not explicitly called out might not be protected in some interpretations. The new language reads, in part, “As a professional society, the AAS must provide an environment that encourages the free expression and exchange of scientific ideas. In

continued on page 5

From the Executive Office

Kevin B. Marvel, Executive Officer, marvel@aas.org



The Boston meeting was a success, both financially and scientifically. Thanks to all our members who attended and thanks to our meeting team, led by Kim Earle, who pulled together all the logistical details. Special thanks to our Vice Presidents, led by Christine Jones, who assembled the scientific program for the meeting. Each new VP seems to

continue setting a higher mark for scientific impact and diversity (writ large), so incoming VPs take note...your peers have challenged you to exceed and we are all counting on you to do so. We also experimented this time around with a closing reception, which was well received by meeting attendees and will certainly be a feature at future meetings. This event allows a brief chance to interact socially with all meeting attendees and involves a far larger fraction of attendees than the banquet. This modification to our meeting structure will also allow us to more justly recognize our prize winners, by featuring them just prior to one of the mid-morning plenary sessions, where far more meeting attendees will be in attendance. As usual, we will assess the impact of these changes from the point of view of members and adjust our course as necessary.

The Council approved a number of new projects and initiatives that will be announced in the coming months in greater detail, as well as being listed in the Secretary's Corner in a complete list. I want to highlight here a few of the exciting new initiatives we are undertaking over the next year.

First and foremost, Council approved an investment in the re-structuring of our communications infrastructure, including the AAS website. We are collecting bids now from external consultants to help us with this significant project and Judy Johnson, our Director of Communications will lead this effort. We anticipate hiring a new staff member to help keep our revised web up-to-date and relevant to both our members and the general public among other audiences. An Education and Outreach initiative championed by President Debra Elmegreen named "Astronomy Ambassadors" will utilize graduate and undergraduate students to reach out to K-12 schools. We anticipate announcing program details sometime early this fall. Finally, an expanded lobbying effort was initiated to bring astronomers into Washington on a regular basis to advocate for the decadal surveys in astrophysics, planetary

science and, soon, heliophysics. Initial visits involving AAS leadership and Decadal Survey panel members will begin this summer and a broader program involving regular AAS members from all career levels will be announced formally in September.

Council also established a Past-President's Roundtable, which will allow the AAS Council or Executive Officer to reach out to our past presidents in a more formal way to seek advice and counsel, to champion fundraising efforts and to allow continued contact between the Society and our past-presidents as well as letting us honor them with an occasional reception at AAS meetings (not, as was suggested by one past-president with tongue firmly in cheek, "somewhere in the Bahamas"). Our presidents put 150% into their service to you, our members, and it has always been a disappointment to see them move on, just when they become highly effective. Now we can hopefully capitalize on this hard-earned wisdom in new and unique ways.

Finally, I am excited to announce that building on the successful meeting organization and management talents of our AAS meetings team, Council has approved an expansion of our meeting program in the coming years. Although all the details are yet to be finalized, the AAS will continue to provide meeting support services to interested meeting organizers in 2012 and beyond and, beginning in 2013, will begin to organize our own topical conference series. Proposals for topical meetings will be vetted by a selection committee based on scientific impact, currency and likelihood to garner good attendance (the first two hopefully guaranteeing the final point). Conferences will then carry the imprimatur of the AAS itself and will be logistically organized by the AAS meetings' team. We are still reviewing the most cost efficient way to handle such meetings, whether in parallel at one or more choice meeting locations, in series at a particular venue or at multiple different venues. Whatever the final structure of this exciting new effort, I am sure it will help us meet our ongoing mission to enhance and share humanity's understanding of the Universe. If you have an idea for a scientific conference you are organizing in 2012 or in 2013, consider utilizing AAS meeting support services. Leave the logistics to us so you can focus on what matters...the science!

As always, I welcome thoughts or comments at marvel@aas.org

pursuit of that environment, the AAS is committed to the philosophy of equality of opportunity and treatment for all members, regardless of gender, gender identity or expression, race, color, national or ethnic origin, religion or religious belief, age, marital status, sexual orientation, disabilities, veteran status, or any other reason not related to scientific merit...”

In Boston I particularly enjoyed meeting with several graduate students who have taken the time to share their views on the AAS with me. For example, the wonderful graduate students behind Astrobites, written for undergraduates about hot astro-ph articles and career guidance, said they would really enjoy a way to meet the undergrads at our meetings. So we are exploring ways to enable such interaction. Sometimes even small changes can make a big difference, so let us hear your voice.

I close by thanking our hard-working outgoing Councilors and Officers: Past President J. Craig Wheeler, who graciously stepped in for a return engagement in that role, Vice President Christine Jones, and Councilors Nancy Morrison, Meg Urry, and Chick Woodward, whose sage advice and camaraderie were much appreciated by all of us on Council. And for those of you who are still confused about the succession of officers, David Helfand is now President-Elect, an office he will hold till next June as he goes through the training process. You’ve got another year with me at the helm. Lee Anne Willson is now the senior Vice President, with primary responsibility for scientific content for the upcoming meetings, Nick Suntzeff moves up as middle VP, and Ed Churchwell is the new VP. I also welcome incoming Councilors Bruce Balick, Eileen Friel, and Angela Speck in what should be an exciting year as we move forward with our new initiatives.

Secretary's Corner

G. Fritz Benedict, aassec@as.org

Preliminary slate for 2012 Elections

Vice President

Margaret Hanson

Paula Szkody

Councilors

Dara Norman

Todd Henry

Amy Simon-Miller

Steve Kawaler

Nancy Brickhouse

Todd Hoeksema

Education Officer

Ed Prather

USNC-IAU

Arlo Landolt

TBD

Additional nominations for Officer or Councilor may be submitted by mail and must be accompanied by a written statement from the nominee indicating a willingness to serve and by the signatures of at least 30 voting Full Members of the Society. Additional nominations for the Nominating Committee must be proposed by at least 5 Full Members of the Society and must also be accompanied by the nominee’s written statement indicating a willingness to serve.

All nominations and supporting materials must be received by 16 September 2011 in the Office of the Secretary. Send nominations to: G. Fritz Benedict, McDonald Observatory, University of Texas, 1 University Station, Austin, TX 78712.

Council Actions

Taken at the 218th Meeting of the Council of the American Astronomical Society at Boston, MA on 22 May 2011

1. Approved the minutes of AAS 217th Council Meeting
 2. Approved the interim Executive Committee actions
 3. Approved the AAS 2011 election results
 4. Approved the election of Oswalt and Schmelz to the Nominating Committee
 5. Approved the appointment of Elmegreen, Hefland, Willson, Suntzeff, Stockman, Benedict, and Marvel to the Executive Committee 25 May 2011 to 13 June 2012
 6. Approved the Annual Business Meeting agenda
 7. Approved those AAS Division and Committee reports available on 22 May 2011. Missing reports will be passed to the Executive Committee for approval.
 8. Directed the Executive Officer to open negotiations with the proposed new editor of the *Astrophysical Journal Letters*.
 9. Approved extending the appointment of Ethan Vishniac as *ApJ* Editor in Chief by one week to 8 January 2012
 10. Approved annual reports from the various journals
 11. Approved the 2010 Financial Report
 12. Approved moving \$75,000 from the General Fund to the General Operating Reserve Fund
 13. Approved the Audit Report from Tate and Tryon, Auditors
 14. Approved the Audit Committee report
 15. Approved appointing Tate and Tryon, Auditors for fiscal year 2011
 16. Approved the creation of the Strategic Initiatives Fund, amended so that residual funds are not returned to the journals
 17. Approved the 2011 Budget, as amended
 18. Approved the 2012 Budget and rates as presented
 19. Approved the adoption of Shapley program improvements as presented
 20. Council endorsed the concept of an Astronomy Ambassadors program to involve astronomy undergraduate and graduate students in coordinated outreach activities to K-12 schools and directed the Executive Officer to deliver a detailed project plan and budget to the Executive Committee.
 21. Directed Executive Officer Marvel to develop a more specific plan for the newly proposed AAS Conference Series
 22. Approved the adoption of the Crisis Communication Plan as presented
 23. Approved creating an AAS Past President's Roundtable
 24. Approved membership of various AAS Council Committees
 25. Elected Liu, Coble, and Higdon to AEB, 2011 – 2014
 26. Directed the Secretary to provide in the future a brief statement about each proposed committee member
 27. Ratified the make-up of the Presidential Committee appointments, as modified
 28. Approved the formation of an Organizing Committee to produce by-laws for a new Laboratory Astrophysics Division for adoption at AAS 219
 29. Elected Yasuo Tanaka an Honorary Member of the AAS for 2012
 30. Approved with various amendments a proposed budget for the CSMA
 31. Approved draft changes to AAS By-laws, Articles VI and X.
 32. Approved the establishment of an ad hoc committee to explore the creation of a new AAS prize for an astronomer who made a significant contribution to society at large, not just astronomy
 33. Approved establishing an LGBT WG
- Actions from Executive Committee Meeting
1. Approved the adoption of Staff Service Awards as recommended by Executive Officer Marvel

National Postdoctoral Association

Joseph Bernstein

The postdoctoral position has become a standard stop on the scientific career path: gone are the days when transitioning directly from graduate school into a tenure-track position was the norm. This development has driven the issue of the impact of postdoctoral efforts, both in terms of the early career researcher and the home institution, into the national spotlight. Polling of postdoctoral researchers (postdocs) has shown that there is a link between employer-provided professional development and the productivity of postdocs. The National Postdoctoral Association (NPA) is a member-supported organization that seeks to maximize the effectiveness of the U.S. research enterprise by enhancing the postdoctoral experience. You can find a link to the NPA on the AAS career networks page: <http://aas.org/career/networks.php>.

The NPA is governed by an elected, volunteer Board of Directors and administered by a professional Executive Director and staff. The common activities of the Association are carried out by a core of volunteer-staffed Committees as well as by International and Diversity Officers. I am currently the Chairperson of the NPA Outreach Committee. Signing up to participate in a NPA Committee is a great way to do something for the greater good, while at the same time gaining those leadership experiences and skills that are increasingly germane to landing a professional position, be it in the academic, government, or private sector.

The NPA has two high-profile events each year: the Annual Meeting (AM) and National Postdoctoral Appreciation Week (NPAW). The AM brings together a few hundred postdocs, administrators, faculty members, and industry representatives for three days of plenary talks and break-out sessions focused on postdocs and postdoctoral issues. The topics presented at the AM are many, ranging from postdoctoral programs and science policy to job hunting and postdoctoral unions, to name just a few. Attending the meeting is also a great way to network and meet other motivated people. While the AM is a localized event, NPAW happens in many places at once. Dozens of institutions across the U.S., and beyond, hosted events in 2010. That same year, NPAW was recognized by the U.S. House of Representatives to be the third week in September each year. Implementation of NPAW takes many different forms at individual institutions from celebratory lunches and picnics to career workshops and panel discussions. The NPA continually welcomes new ideas for NPAW events.

The NPA is currently seeking input from the postdoc, graduate student, postdoc programs office, and faculty communities on how the NPA can better serve them. If you are looking for more substantial NPA participation, and are passionate about helping others and driven to make a difference, the NPA wants to hear from you! Either way, feel free to contact me directly at jpbarnst@gmail.com.

Joseph Bernstein, Ph.D., is a Computational Postdoctoral Fellow at the U.S. Department of Energy's Argonne National Laboratory and Chair of the National Postdoctoral Association Outreach Committee.

Member Deaths

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

William P. Bidelman

Victor Blanco

Edward W. Burke, Jr.

Thomas Carr

Elisabetta Pierazzo

Edward R. Schiffmacher

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@aas.org or log into your member record at aas.org.

To unsubscribe from AAS emails, contact address@aas.org

For address changes, email address@aas.org

Journals Update

Chris Biemesderfer, Director of Publishing, chris.biemesderfer@aas.org

Community Trust Initiatives

Each year around the time of the AAS summer meeting, the Society for Scholarly Publishing (SSP) holds its annual meeting. The SSP annual meeting is the focal point for professionals (publishers, technologists, etc.) engaged in scholarly communication. It is a meeting I attend regularly. This year, there was a session devoted to “community trust initiatives,” which are projects designed to enable researchers to know who (and what) they can “trust,” so they can be certain that the scholarly resources they rely on are credible. The AAS has an important role to play in assuring the veracity of the research results we publish, and I thought I would describe several of these initiatives that we support or participate in.

The CrossRef organization started trials this spring of a project called CrossMark, whose purpose is to allow researchers to verify that they are looking at a copy of a scholarly article that is from the “version of record,” and to ascertain its current status. CrossMark is something like the watermark that is used to indicate the source of paper in print documents, or the so-called digital watermarks that are ripped onto PDFs as they are downloaded. CrossMark’s database is richer than simple marks such as those, storing further information about each article’s heritage, information that can be augmented over time. A system like this permits publishers to report about articles after they are published. By examining the information provided by the CrossMark system, a reader can find out about updates (errata) or amendments to an article, whether there are enhancements such as data sets or videos or codes, and even whether the article has been withdrawn or retracted. We have offered for the *Astronomical Journal* to participate in the beta tests, so you may start to see CrossMark logos on *AJ* articles sometime this year.

For many years, it has been apparent that the capability to automatically disambiguate authors would have benefits for scholarship. Various schemes have been proposed to uniquely identify individuals, and a number of prototype systems have been experimented with. (At the single organization level, e.g. the AAS, this has been done for a long time, of course.) An initiative called ORCID (Open Researcher and Contributor ID) was formed last year to address this problem comprehensively. Over 200 organizations are already participating, including

academic institutions, publishers, scholarly societies, as well as other organizations. The AAS joined as a founding sponsor in February 2011. The solution to which ORCID aspires is a central registry that permits individuals to identify themselves and register their associated names and identifiers, as well as the context in which the different identifiers are used. It is similar in concept to websites that consolidate classes of information (e.g., one’s airline and hotel loyalty program data) in a central place. The ORCID service is expected to launch in early 2012.

One of the foci for our journals’ development is digital data: the data we publish in the journals (machine-readable tables, FITS files, etc.), data sets held elsewhere, and crucially, the ability to link between the journals and external data repositories. We are making an effort to update the data set identification technologies and refine the associated procedures that are used in the astronomy community, by affiliating with a global data identification project called DataCite. DataCite serves the research enterprise by helping people and organizations find, identify, and cite data sets. DataCite’s core technology is a registry for persistent identifiers of data sets, and as such DataCite is effectively the “CrossRef for data sets.”

I have mentioned CrossRef a couple times now. CrossRef is an important trust initiative in its own right, whose mission is to enable easy identification and use of trustworthy electronic content. CrossRef’s core function of article identifier registration and resolution permits publishers like the AAS to create reliable hyperlinks from articles we publish to other primary content that is cited in the article. This allows a reader to move from one article to another at the citation level, regardless of the journal that either article was published in. The AAS has been a supporter of the CrossRef initiative since its founding in early 2000.

Another aspect of digital publishing where trust is important concerns the preservation of digital article assets. In the print era, the Society’s responsibility in the preservation of the scholarly record was to ensure that articles were produced to high standards of typesetting and printing, which included ensuring that our printers used archival quality paper. (They still do.) The actual

preservation of the print copies was achieved by the libraries who subscribed to the print, and who then took steps to preserve the issues in stacks and vaults. In the digital era, libraries and publishers are collaborating on several initiatives that aim to preserve the digital artifacts of modern scholarly communication. The AAS is a publisher member of Portico, a trusted third-party repository for digital scholarly articles. At the end of the production process, the digital assets of each article

published in our journals are all delivered to Portico by our publishing partners AIP and IOP.

For more information:

www.crossref.org/crossmark

www.orcid.org

www.datacite.org

www.crossref.org

www.portico.org

25 Things About AAS Councilor... Angela Speck



1. Birthplace ... is five miles from where Fred Hoyle was born.
2. My favorite cereal is ... really expensive poncy stuff from the health food section of the supermarket.
3. Motto ...

“Take what you can, give nothing back”, no, wait, that’s C(aptain) Jack Sparrow

4. I was born in ... Yorkshire.
5. When I get home, I like to wear ... as little as possible.
6. The most important thing I learned from my mother was ... to laugh.
7. The most important thing I learned from my father was ... to argue.
8. My favorite time of day is ... anytime I get to have coffee.
9. My favorite holiday is ... Halloween.
10. Do you untie your shoes when you take them off... occasionally.
11. My favorite season is. ... Fall—’s pretty.
12. My first real job was ... Research & Development Technician for a company called Mountain Breeze (designing and patenting air cleaners).

13. Farthest I’ve been from home ... depends on what I call home. Australia is probably furthest anyway...

14. Were you named after anyone ... Angela Davis (now Prof at UC Santa Cruz, then an infamous feminist communist black activist)—and she was incarcerated at the time I was born.

15. I prefer AM or FM radio ... NPR.

16. My favorite sport is ... quidditch, but I quite like (American) football (Colts fan for 12 years).

17. Something that really annoys me ... “very unique” - it’s like slightly pregnant, it doesn’t make sense, things are either unique or they are not unique—its binary—there is no in between.

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

19. I make the best ... purple margarita ice cream.

20. My favorite city is ... London (but there are lots of others I’m very fond of).

21. My favorite actress is ... Katharine Hepburn or Margaret Hamilton.

22. I want to retire... in Flagstaff AZ.

23. I refuse to play... Xbox or any other similar gaming system.

24. Four people from history to have at a dinner party ... With the whole of history to choose from, this one is tough to narrow down to only four, but here goes: Neil Armstrong, Galileo Galilei, Cary Grant, Clarence Darrow.

25. I think people should ... all just get along.

Photo credit: Carole Patterson

Letter to the Editor

Supporting the Integrity of Science Education in the Classroom

Dear Editor:

We would like to draw your attention to The Clergy Letter Project (<http://blue.butler.edu/~mzimmerm>), an attempt to mobilize religious leaders (now more than 13,000) who have banded together to assert that the best science has to offer should be taught in our public school science classes, including cosmic origins and evolution. In light of the importance of public understanding of the scientific basis of these subjects, as well as the need to distinguish scientific questions from religious or political questions, The Clergy Letter Project has organized a list of nearly 1,000 scientists from every state in the country, as well as 30 other countries, who are willing to answer scientific questions posed by the clergy members who have signed one of the Letters. The scientists who have joined this effort have a wide range of personal beliefs, but they all believe that the battles that have been raging

between religion and science are detrimental to science education and bad for society. Signing on simply means that you will be listed on The Clergy Letter Project web page and that you will be willing to answer scientific questions about your areas of expertise if asked. Signing on does not mean that you are endorsing any particular religion—or that you are endorsing religion in general. If you would like to join this international effort, simply send an e-mail to: (mz@butler.edu) with your name, title, address, area of expertise, and e-mail address.

Michael Zimmerman, Ph.D.
Indianapolis

Grace Wolf-Chase, Ph.D.
Chicago

The Public Observatory at the National Air and Space Museum

A Public Observatory opened on the National Mall in Washington DC in September 2009 as part of the general astronomy outreach program supported by the National Air and Space Museum of the Smithsonian Institution. Funded by a two-year NSF grant, the observatory was the result of the Museum's decision to participate in the International Year of Astronomy, celebrating the 400th anniversary of Galileo's use of a telescope to examine the Moon, Venus, Jupiter and the Milky Way.

The Washington Mall is not the best place to view the night sky, or the day sky for that matter. But it is where the people are. It is one thing to get people to go where telescopes are, but it is quite another to bring telescopes to the people. That is what we decided to do.

Coincidentally, the Harvard-Smithsonian Center for Astrophysics had closed its Oak Ridge facility, and a 16-inch Boller & Chivens telescope came available for loan. Dating from 1967, this telescope personifies instrumentation made available during the early years of

the Space Age, and so it fit very well in the general thematic scope of the Museum. Placed in a 6.7-meter prefabricated dome, and sitting on the east terrace of the Museum in full view of Independence Avenue, the Observatory has now been open for almost two years between four and six days per week in the daytime and some evenings. It has become the focus for school tours and we are now broadening its reach via the web. In the first year, the public made well over 50,000 "looks" through the Boller & Chivens and associated other small telescopes on the terrace, mainly at the Sun, Venus, Mercury and the Moon during the day, and bright celestial wonders at night. We are now nearing the 100,000 mark.

More information can be gleaned from the Museum's website. The Observatory is presently featured at www.nasm.si.edu/events/lectures/askanexpert.cfm. It is also on YouTube at: youtube.com/watch?v=Bm1kqAhf-88. The webpage for the observatory is at: www.nasm.si.edu/pop.

News from the Historical Astronomy Division

Wayne Osborn, wayne.osborn@cmich.edu

The Historical Astronomy Division (HAD) is one of the smallest of the AAS divisions (with about 300 members), but it is quite active. Besides organizing regular division meetings, usually held in conjunction with AAS meetings, HAD publishes a semiannual newsletter, awards two prizes, maintains an extensive web site, prepares the AAS obituaries, and provides travel awards to help students attend meetings.

A brief on-line survey was conducted this past spring to learn about the HAD membership and its views on how well HAD is serving its members. The response rate was 25% and respondents included not only astronomers but also a significant fraction—about one-third—who identify themselves primarily as historians, archivists, curators, educators or other scientists. On a scale of 1 (least) to 5 (most), overall satisfaction with HAD was rated 4.2,

and all activities of the division received ratings of 4.0 or higher. Members seemed pleased with the practice of holding HAD sessions as part of AAS meetings, but some reported difficulties in attending most meetings due to cost (about 30% of the survey respondents indicated they are retired and must cover meeting expenses themselves).

Based on the survey results, the division leadership does not see a need for modifications in the operation of HAD. Meetings will continue to be held with the AAS, generally the winter meeting, and we will continue to have one or two special sessions dedicated to a specific topic. The two topics for the next Meeting, 8-9 January in Austin, will be “The Transits of Venus 1639 through 2012” and “The Funding of Astronomy in the post WWII Era.” Anyone interested in further information on HAD can visit the web page at <http://had.aas.org/>.

2011 Chrétien Grant Winner Brice Menard



The 2011 Chrétien grant has been awarded to Brice Menard for research on the large scale distribution of dust in the universe, particularly the amount and properties of dust well outside the disks of galaxies, how it got there, and the resulting implications

for use of distant supernovae as standard candles. The proposed work, with colleagues in Munich and Stockholm, pioneers a new technique, based on a correlation between galaxies selected in emission and in dust reddening. It will be extended to measure correlations between QSO absorption line systems, using a new survey called SDSS-3BOSS, the largest sample of metal absorber systems ever assembled.

IAU Membership Deadline

Scientists seeking to become IAU members apply through the relevant National Committee of the country where they are working or living permanently. In the United States, the U.S. National Committee of the IAU (USNC-IAU) is organized through the Board on International Scientific Organizations at the National Academy of Sciences.

The USNC-IAU establishes an application procedure following IAU regulations and procedures and accepts applications in the year prior to each General Assembly. With the next General Assembly scheduled to be held in August, 2012 in Beijing, China, the USNC-IAU is happy to announce that the membership application process is now open. A new electronic membership application process has been established to make becoming a member easier. Interested scientists should send a request for membership information to the following email address: IAU_Applications@nas.edu. An access code will be provided to the online membership application system.

The deadline for applications for membership is 18 November 2011.

Highlights from the Hub of the Universe

When the 218th AAS meeting convened in Boston, Massachusetts, last 22-26 May, the city truly lived up to its grandiose nickname, “The Hub of the Universe.” More than 1,350 astronomers, students, exhibitors, and journalists thronged to the Westin Copley Place hotel for the joint gathering of the AAS, the Historical Astronomy Division (HAD), and the American Association of Variable Star Observers (AAVSO), which is celebrating its centennial this year. AAS members of a certain age may remember when it was a rare winter meeting that attracted so many attendees.

The Westin is situated on an oddly triangular lot bordered by some of Boston’s busiest streets, so the hotel is oddly triangular too. Navigating from floor to floor and room to room was a challenge at first, but at least you could not get stuck going around in circles! There were remarkably few glitches during the week, and AAS staff members were gratified to receive lots of compliments from satisfied attendees on a meeting well run and well worth the time spent. The photos on these pages capture some of the meeting’s highlights.

Next up is AAS 219 in Austin, Texas, 8-12 January 2012. Registration opens on August 16th, and abstracts are due October 5th. Y’all come!

Rick Fienberg, AAS Press Officer and Education & Outreach Coordinator



Left: As usual, the meeting began with weekend workshops. In this one offered by the Center for Astronomy Education and the Collaboration of Astronomy Teaching Scholars, participants expressed a difference of opinion as to whether the correct answer to a question was A or B. Unless otherwise credited, all photos are by Rick Fienberg and Inge Heyer, © 2011 American Astronomical Society. **Right:** Another weekend workshop, this one offered by the LIGO-Virgo Collaboration, featured David Kaplan (Univ. of Wisconsin, Milwaukee) and other experts evaluating our prospects for detecting gravitational waves from—or via—rapidly spinning neutron stars. Courtesy Mark Zastrow (Boston Univ.).



Left: The Boston area is home to numerous astronomical institutions, and the press corps took field trips to several of them. Here reporters tour the Chandra Operations Control Center in Cambridge with Chandra X-ray Center manager Roger Brissenden (third from left). **Right:** Social gatherings were held across the street from the Westin at the majestic Fairmont Copley Plaza hotel. Enjoying the K-12 educator reception on Sunday afternoon were George Papayannis (Fenway High School), Martha Wawro (NASA Goddard), Kate Youmans (MIT), and Andria Schwartz (Quinsigamond Community College). Schwartz (@aschwartz) was the meeting’s most prolific Twitter user.



Left: AAS president Debbie Elmegreen (Vassar College) welcomed students to the undergraduate orientation reception. Our meetings continue to attract large numbers of enthusiastic and capable college students, which bodes well for our field's future. **Right:** At the undergraduate reception, AAS vice-president Lee Anne Willson (Iowa State Univ.) chatted with Chicago State University students Carmelita Camarillo, Virginia Hayes, and Melissa Nickerson. Later in the week Nickerson won a Chambliss student achievement medal for her poster on the effects of interactive tutorials and hands-on activities on students' understanding of dark matter.



Left: The ornate ballroom of the Fairmont Copley Plaza offered astronomical ambience for the AAS opening reception on Sunday evening. **Right:** During the welcome address on Monday morning, Debbie Elmegreen presented AAVSO director Arne Henden with a certificate congratulating the variable-star association on its 100th anniversary. AAVSO president Jaime Ruben Garcia looks on.



Left: Before giving his forward-looking Kavli lecture, "The 2050 Decadal Survey of Astronomy and Astrophysics," Malcolm Longair (Cambridge Univ.) was honored by Debbie Elmegreen with honorary membership in the AAS. **Right:** Sandwiched between Publications Board chair Richard Green (LBTO) at left and AAS director of publishing Chris Biemesderfer at right are the principal editors of most of the major astronomy journals: Bob Carswell (*MNRAS*), Dan Fabricant (*PASP*, standing in for Paula Szkody, who couldn't make it to Boston), Claude Bertout (*A&A*), Chris Sneden (*ApJLett*), Jay Gallagher (*AJ*), and Ethan Vishniac (*ApJ*).



Left: On Monday morning, in the first of the week's six press conferences, reporters were briefed on the current status of the Kepler mission and learned of the discovery of exoplanet Kepler 10c by a new method that distinguishes genuine planetary transits from similar-looking signals caused by unresolved eclipsing binaries. Speakers included Dave Latham (CfA), Soren Meibom (CfA), Bill Borucki (NASA Ames), Francois Fressin (CfA), and Geoff Marcy (UC Berkeley). **Right:** Lee Anne Willson (Iowa State Univ.) introduced Jeremy Drake (CfA), who gave an invited talk with the provocative title "Stars, Planets, and the Weather: If You Don't Like It, Wait 5 Billion Years." The weather was unseasonably cool and gray in Boston, but you only had to wait a few days for it to get warm and sunny—just as the meeting ended!



Left: At a lunchtime NASA Town Hall on Monday, Astrophysics Division director Jon Morse described the agency's current budget situation and future prospects in the context of the troubled economy and partisan political climate. On a graph of ongoing and forthcoming space-astronomy missions, the launch date for JWST was...shall we say...indeterminate. **Right:** David Soderblom (STScI), Arne Henden (AAVSO), and Lisa Frattare (STScI) told reporters about the Hubble Space Telescope's recent observations of the Cepheid variable in M31 that led to Edwin Hubble's 1923 discovery that the Andromeda "nebula" is actually a separate galaxy like our own Milky Way. But first, Owen Gingerich (CfA) set the stage with a historical introduction.



Left: AAS deputy press officer Larry Marschall (Gettysburg College) served as emcee for two of the week's press conferences. **Right:** Lecturing at the blackboard isn't the only way to teach astronomy, thankfully. In a special session entitled "Astronomy Unexpected," Mike Francis (Stars Science Theater) showed how he connects with students by appearing in the guise of Galileo Galilei. Courtesy Mark Zastrow (Boston Univ.).



Left: Music of the spheres, anyone? Alan Marscher (Boston Univ.) keeps his students from falling asleep at their desks by playing his guitar and singing songs he writes himself to convey astrophysical concepts in a memorable way. He demonstrated his approach during the “Astronomy Unexpected” special session. **Right:** On Monday evening the press corps headed to the recently renovated Charles Hayden Planetarium at the Boston Museum of Science (MoS) to see its new projectors put through their paces. Inside the domed theater are Martin Ratcliffe (Sky-Skan), Dani LeBlanc (MoS), David Rabkin (MoS), AAS press officer Rick Fienberg, and Darryl Davis (MoS).



Left: On Monday evening the AAVSO hosted an open house at their headquarters in Cambridge, in the building formerly occupied by *Sky & Telescope* magazine. Here staffer Michael Saladyga recounts some of the AAVSO’s rich history of amateur-professional collaboration. **Right:** “Once & Future Supernovae” was the topic of Tuesday morning’s news briefing, which featured a debate about when Cas A exploded and a deep survey of the Carina “supernova factory” with the Chandra X-ray Observatory. Presenters were Junfeng Wang (CfA), Matt Povich (Penn State Univ.), Gisela Dreschhoff (Univ. of Kansas), Lila Rakoczy (Independent Scholar), and Leisa Townsley (Penn State Univ.).



Left: Nick Kaiser (IfA) kicked off Tuesday’s program with an invited talk on the Pan-STARRS wide-field imaging survey, which is beginning to generate scientific results in areas as diverse as near-Earth asteroids and remote Type Ia supernovae. **Middle:** Noreen Grice (You Can Do Astronomy, LLC) hosted a press reception to announce the publication of her new book *Everyone’s Universe: A Guide to Accessible Astronomy Places*. With her is Ray Villard, news chief at STScI. **Right:** The public thinks of Kepler as an exoplanet mission, but as Ron Gilliland (STScI) explained in his invited talk, the telescope is also revolutionizing our understanding of stars through its ultraprecise photometry.



Left: After receiving her prize certificate from AAS president Debbie Elmegreen, Margaret Geller gave her Henry Norris Russell Lecture, “Mapping the Universe with Redshift Surveys and Weak Lensing.” During her presentation she paid tribute to her longtime collaborator and AAS past president John Huchra (CfA), who would have introduced her had he not passed away last year. **Right:** Jim Ulvestad and Tom Statler presided over the NSF Town Hall on Tuesday, offering a frank and not very heartening assessment of funding for ground-based astronomy in the decade(s) ahead.



Left: After being introduced by AAS deputy press officer Inge Heyer (Univ. of Wyoming), NRAO astronomers Rick Perley, Chris Carilli, and Ran Wang (also Univ. of Arizona) told reporters about early science results from the Expanded VLA, including Wang’s detection of molecular gas in a merging pair of quasars at a redshift of about 6. **Right:** Laura Trouille (Univ. of Wisconsin, Madison) chaired a special session on mentoring and networking for women and minorities. She said that the AAS Committee on the Status of Women in Astronomy was very pleased to see the mix of men and women in the audience, but that “there’s definitely work to be done in engaging more senior men in these discussions.”



Left: AAS councilor James Lowenthal (Smith College) organized a special session on sustainability and astronomy. He and his panelists explored issues related to decreasing our environmental impact while simultaneously increasing our educational impact. **Right:** After a scrumptious Chinese dinner in Cambridge, the press corps headed to the CfA for a presentation by Richard Panek, author of the new book *The 4% Universe: Dark Matter, Dark Energy, and the Race to Discover the Rest of Reality*. Several members of the audience, which included numerous CfA scientists, feature prominently in the book.



Left: At Wednesday morning's news briefing, Farid Salama (NASA Ames) described new laboratory simulations of the interstellar medium, and Peter Foukal (Heliophysics) showed that the Sun may have dimmed a bit during the 17th century. Karen Masters (Univ. of Portsmouth) unveiled the completed 2MASS redshift survey, and Bob Kirshner (CfA) recalled the late John Huchra's seminal role in the project. **Right:** At the final press conference of the meeting, Will Clarkson (Indiana Univ. & UCLA) reported the first detection of blue stragglers in the Milky Way's bulge. Tom Jarrett (IPAC/JPL) unveiled an atlas of nearby galaxies culled from the WISE all-sky survey, while Laurantine Lanz (CfA) shared highlights from the Spitzer interacting-galaxy atlas. Finally, Nino Cucchiara (UC Berkeley) announced that gamma-ray burst 090429B occurred in a galaxy at a redshift of 9.4, making it possibly the most remote celestial object observed.



Left: Debra Fischer (Yale Univ.), whose involvement in the search for exoplanets goes back to some of the earliest discoveries, used her invited talk to impress upon the audience how amazingly far we've come in the 16 short years since the first planet was found orbiting another Sun-like star. **Middle:** AAS treasurer Peter Stockman (STScI) announced at the members meeting that the Society was "in the black" for the second year in a row. **Right:** In his Wednesday-afternoon invited talk, "What Drives the Growth of Black Holes?" Ryan Hickox (Durham Univ.) explored the latest research on how supermassive black holes evolve at the centers of galaxies and how, in turn, they affect the evolution of their hosts.



Left: AAS president-elect David Helfand (Columbia Univ.) and current president Debbie Elmegreen (Vassar College) worked long hours in Boston, but, hey, even elected officials need a break now and then! **Right:** In lieu of a banquet on the eve of the meeting's final day, the AAS tried something different this time: a closing reception. It is not clear whether Geoff Marcy (UC Berkeley) and Gina Brissenden (Univ. of Arizona) were particularly happy with the experiment or were simply looking forward to the unofficial "afterparty" that Gina and her colleagues organized later that evening.

AAS and the Under-recognition of Women for Awards and Prizes

A.B. Popejoy (Association for Women in Science) & Phoebe S. Leboy (Univ of Pennsylvania)

The American Astronomical Society (AAS) is one of many scientific disciplinary societies that awards prizes to an elite group of its members for excellence in research, service, and teaching. The winners of these awards are considered to be the most accomplished or contributory to the discipline, and they become leaders for peers and potential future investigators in the field. The recipients of *scholarly* awards (those the society deems to have made the most significant advances in the field) impact both the retention of researchers and the recruitment of future talent. For this reason and many others, it is important that demographics of award winners reflect the diversity of accomplished researchers in a field. The governing board of the AAS recognizes the importance of this issue, and are partnering with the Association for Women in Science on the AWARDS Project¹ to examine awards given by AAS and to develop best practices for enhancing fairness and equity in the selection process for scholarly recognition.

Looking at the history of awards presented by AAS in the last twenty years, there is a striking imbalance between the number of women who have won awards for research and the proportion of women in astronomy. Based on data collected by the American Institute of Physics (AIP) in 2006, roughly 11% of full professors in astronomy were women, and women represented 24% and 28% of associate and assistant professors, respectively. The proportion of women among PhD recipients 20-40 years ago (10%) is similar to the proportion of female full professors, identifying the same cohort of scientists who are most eligible for senior research awards. One would expect (assuming that women and men are equally capable of making discoveries) that the proportion of women among mid- to late-career scholarly award winners would reflect the 10% estimate of female senior astronomers, but the actual proportion of women awardees is strikingly low,

hovering around 3% (Fig.1). For the purpose of this study, we excluded women-only awards and early-career research awards to ensure a comparable analysis between the pool of eligible candidates and award winners. Looking only at AAS's senior research awards, 2 women in the last twenty years received an award out of 63 total; they were each presented the Russell Prize, but in different decades. This year, another woman was awarded the Russell Prize so that number increased to 3 women out of 66 total senior scholarly awardees since 1991.

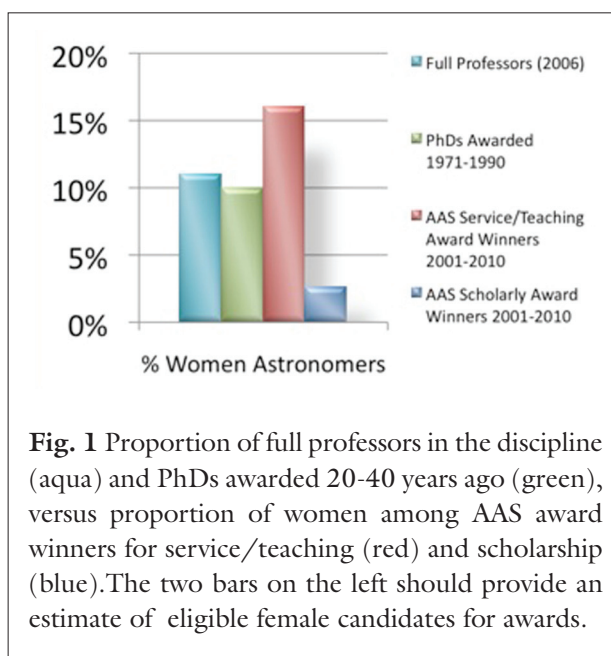


Fig. 1 Proportion of full professors in the discipline (aqua) and PhDs awarded 20-40 years ago (green), versus proportion of women among AAS award winners for service/teaching (red) and scholarship (blue). The two bars on the left should provide an estimate of eligible female candidates for awards.

In all societies examined, women were more likely to receive awards for teaching and service to the society than for scholarship, and in the major physical science societies, the proportion of men among scholarly award winners ranged from 94-98% (Fig.2). The discrepancy between proportions of women winning different types of awards, as well as the under-representation of women among senior scholarly award winners (based on the availability pool of eligible female researchers in the discipline) suggest the selection process for awards may be affected by

social stereotypes about men and women as scientists.

Psychology research suggests that implicit gender stereotypes held by both men and women lead us to associate men with careers and science, and women with nurturing and the humanities². This could lead society selection committees to unconsciously prefer male candidates for research and scholarly awards, while preferring women for service awards. We have explored this hypothesis by looking at the awards history of seven societies in math and science disciplines, and recently presented data on our findings to the governing board of

Percent Women Among Award Winners for Research and Service to Societies

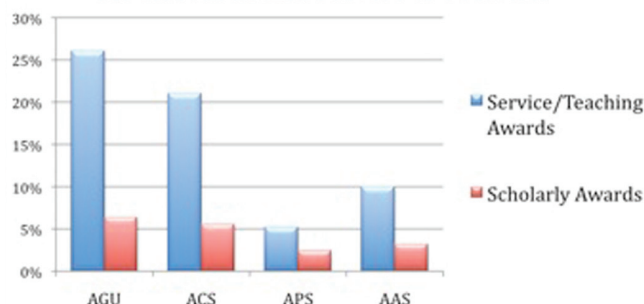


Fig. 2 Proportion of women among service/teaching and scholarly award winners in four disciplinary societies (from left to right: American Geophysical Union, American Chemical Society, American Physical Society, American Astronomical Society).

AAS. The trends in awards history are similar across the disciplines, and AAS has signed on as a newly participating society on the AWARDS Project.

As a result of this partnership, AWIS and the AWARDS Team will be presenting at the AAS national meeting in January, and is working with society leaders as well as the Committee on the Status of Women in Astronomy (CSWA) to develop strategies for maximizing objective decisions in the awards selection process. For more information, visit the AWIS website at <http://www.awis.org/displaycommon.cfm?an=1&subarticlenbr=397> or email popejoy@awis.org.

¹The Advancing Ways of Awarding Recognition in Disciplinary Societies (AWARDS) Project is a three-year grant to the Association for Women in Science (AWIS) from the National Science Foundation (NSF) to examine the status and recognition of women in scientific disciplinary societies.

²Carnes et al. (2005); Steinpreis, Anders & Ritzke (1999); Wenneras & Wold (1997); Greenwald & Benaji (1995)

Chambliss Student Achievement Award Winners

Through the generosity of AAS Member 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 gold-plated 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 218th 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.

Graduate Student Medal Winners

Daniel Majaess
Kushal Mehta
William Dirienzo
Nicholas Stone

Undergraduate Student Medal Winners

James Hogg
Melissa Nickerson
Amanda Cordes
Sajjan Mehta
Thomas Rice

Graduate Honorable Mentions

Alfred Whitehead
James Davenport
Heather Bloemhard

Undergraduate Student Honorable Mentions

Kevin Hardegree-Ullman
Robert Marchwinski

High School Student Honorable Mentions

Adam Maxwell
Kyla Borders
Stella Kim

Committee on Employment

Liam McDaid, mcdaidl@scc.losrios.edu

The Scientist as Entrepreneur

This month's column is part two of a two-part column by Peter Foukal, a scientist and businessman who literally created his own career. His career path is an interesting one and shows that it is possible to make one's own path, however challenging it might be. Here he details how he got started.
- L.M.

Our irradiance research led to an interest in new light flux measurement techniques, particularly cryogenic radiometers. We improved the mechanical design and developed sensitive AC bridge electronics for these sophisticated instruments, and received orders for the national standards of light and detector calibration for the US (NIST), Germany (PTB), Canada (NRC), France, Switzerland, Japan and many other nations. Several NIST staff like Jon Geist, Ed Zalewski and Al Parr, provided helpful ideas and funding.

Detector calibrations using the the cryo-radiometers required more stable light sources than lamps could provide. So we improved a NIST design for a servo system that removed flicker from lasers, and commercialized that. These laser stabilizers became a staple of detector calibration labs and we shipped hundreds worldwide. Some of our product development work was funded under the Small Business Innovation Research Program, and our success in commercializing the products earned us a NASA SBIR Achievement award.

A commercial cryogenic radiometer and stabilizer system built by L-1 Standards and Technology Inc. under licence from CRI was used recently to correct the value of the total solar irradiance by the University of Colorado's Laboratory for Atmospheric and Space Physics. We had suggested the importance of cryo-radiometry to characterize flight radiometers many years ago, but it was to LASP's credit that they implemented this technique on flight hardware; the correction they found was even large enough to warrant a 27 January 2011 editorial in *Nature*!

A desire to reduce reliance on expensive electro-optic crystals in our laser stabilizers motivated us to experiment with liquid crystal (LC) optics. This led to the development of rapidly tunable LC birefringent filters and polarization analyzers which found applications in telecom, remote sensing and biomedical imaging. These CRI VariSpec filters are now used widely in fluorescence microscopy and for *in-vivo* imaging in cancer research, among other

applications. The many technical hurdles required to produce these innovative products were surmounted mainly by Peter Miller and Cliff Hoyt, two very capable engineers who had joined me in forming CRI.

These new products were exciting but they took CRI into fields far from my expertise. Also, as the company grew, management responsibilities for our 20 employees increased to a point which led me and my wife to sell the firm to a group of investors in 1999. CRI has since expanded to over 60 employees; in December 2010 it merged with Caliper Life Sciences, Inc., a large, publicly traded biomedical imaging corporation and its facilities are moving to Hopkinton, MA. This merger will ensure that the ideas we hatched as scientist entrepreneurs 25 years ago will reach their full potential in helping people worldwide through improved biomedical imaging, and also by reducing the US trade deficit!

I was able to concentrate on solar research again, incorporating in 2002 as Heliophysics, Inc., and working from home (no more commuting!) A focus of mine has been the Solar Bolometric Imager (SBI), an innovative solar telescope that images in integrated light with a flat spectral response from the UV into the IR. We developed it for irradiance studies with Scott Libonate at CRI and it was prepared for balloon flight by Dave Rust and Pietro Bernasconi's group at the Johns Hopkins Applied Physics Laboratory. The SBI has since obtained thousands of photospheric images in two successful flights from Ft. Sumner (and a less successful one from McMurdo in Antarctica); it provides the next logical step in NASA's flight instrumentation required to fully understand solar irradiance variation.

A career in science entrepreneurship remains unusual. Several solar astronomers now work for small private research consortia like those pioneered by Karen and Jack Harvey, Sara Martin or Northwest Research. Solar astronomers have also founded successful commercial firms, like Tom Baur's Meadowlark Optics. But I am not aware of any besides CRI where solar research was combined successfully with a line of commercial products. It is a path that more young scientists should consider. Looking back over the 32 years since I left Harvard, I feel that entrepreneurship enabled me to achieve my potential as a scientist as well as if I had pursued an academic career, without the concessions on location that such a career would probably have required.

Our solar research at Astronomy Education Review (AER) and CRI led to well over 100 refereed papers, including cover articles in *Science*, *Nature*, and *Scientific American*. I even found time (by rising very early for five years!) to write “Solar Astrophysics”, a text first published in 1990. I was able also to contribute to the solar community by serving on various NASA, NSF and NAS committees, as well as leading the NSF SUNRISE program that provided funding for irradiance research for about a decade. A radiometry workshop that I organized at AER in 1985 has expanded into NEWRAD, the major international radiometry meeting, now attracting almost 200 participants biennially. I don’t think I would have done things much differently from a base at a university or major lab.

Running a small business certainly takes time, but so do teaching and serving on faculty committees, or administrative duties at industrial or government labs. My experience teaching Astro 10 to science majors at Harvard gave me respect for the time required to design and present a course. The reward was meeting bright students like James Kasting, who has gone on to an impressive career in planetary astronomy. It would have been nice to train graduate students in observational solar physics, but that is my only regret.

Instead, I built the small East Point Solar Observatory (EPSO) in our little town near Boston in 1995 and used it to offer a summer astronomy program for 9-14 year olds. NASA Outreach funding enabled me to hire a high school

teacher to help out, and we attracted up to 40 youngsters. I continue to use EPSO to look at the sun on clear days, a habit I learnt from Hal Zirin, which I recommend to all solar astronomers. It is good to be reminded of what it is we are studying!

I hope my experiences will help young scientists realize that you *can* design your own career and do satisfying research outside of the conventional tracks of a university, government or industrial lab. It *is* advisable to develop your credentials in one of these more conventional environments before venturing out on your own. Entrepreneurship, like any career path, can be stressful and it isn’t for everyone. But if you like a challenge it can be very rewarding.

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 (<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@scs.losrios.edu).

Announcements

AAS 2012 Membership Calendar

As a membership benefit, the AAS Membership Calendar includes important dates, such as proposal and grant deadlines and AAS sponsored meetings. Sponsors receive selection of a photo layout page and 250 words of text. 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. Sponsors are reminded that space is provided on a first-come, first-served basis. Groups interested in sponsoring a month may contact Crystal Tinch (crystal@aas.org) for more information and pricing details for the 2012 calendar. Deadline for sponsorship is 1 September 2011.

NSO Observing Proposal Deadline

The current deadline for submitting observing proposals to the National Solar Observatory is 15 August 2011 for the fourth 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) or P.O. Box 26732, Tucson, AZ 85726 for Kitt Peak facilities (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.

continued next page

An observing-run evaluation form can be obtained at 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.

National Academies Makes PDFs of All Reports Freely Available

PDF files of reports that were formerly for sale on the National Academies Press (NAP) Website (www.nap.edu) and PDFs associated with future reports are now available free of charge to Web visitors. Projections based on free PDFs currently available on the NAP Website show that this change in policy will dramatically enhance the dissemination of reports from about 700,000 free PDF files downloaded per year to more than 3 million annually by 2013.

Free access to the National Academies' online reports supports the organization's goals to improve government decision making and public policy, increase public education and understanding, and promote the acquisition and dissemination of knowledge in matters involving science, engineering, and medicine. NAP will continue to produce printed books, as many readers will be interested in purchasing them.

Implementing this free download option will make the results of NAS's work even more available to the American public and to other readers throughout the world. The NAS hopes everyone will agree that this is a wonderful opportunity to make a positive impact on the world by more freely sharing their knowledge.

NHSC Proposal Planning Workshop Rescheduled to 21-22 July 2011

(The European Space Agency) ESA announced last week the opportunity of a competition for open time observations with Herschel (OT2). This is the final opportunity (See http://herschel.esac.esa.int/AO_Introduction.shtml.) The AO document states that the HOTAC will have available for allocation 3300 hrs of high priority (OT2p1) time, and 3850 hrs of lower-priority (OT2p2) time in the upcoming call. There is an uncertainty of about 1-2 months in the Herschel cryogenic lifetime, and the total amount of time available for execution is uncertain by 550 hours per month. Only

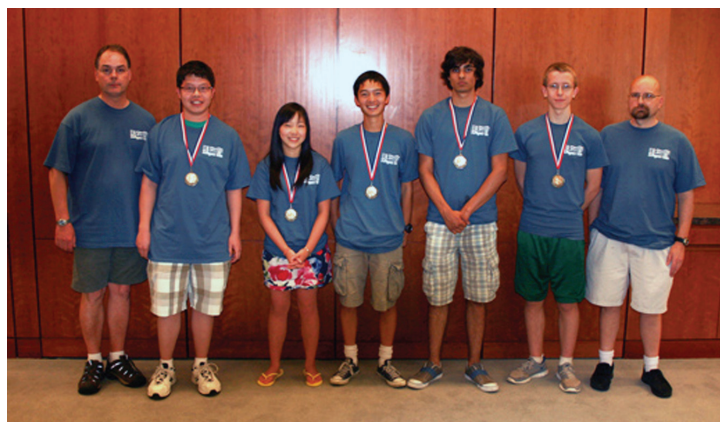
a small fraction of the OT2p2 is expected to be executed, as this category is designed primarily as "over allocation" to keep the schedules efficient. Notwithstanding these uncertainties, OT2 represents a significant opportunity for all astronomers to exploit the unique capabilities provided by this remarkable space telescope.

To help support astronomers responding to this AO, the NHSC is hosting a Proposal Planning Workshop in Pasadena on 21-22 July 2011 (note that this workshop has been rescheduled to provide better phasing with the AO release). The meeting is open to all interested parties. In addition to reviewing the capabilities of the three instruments HIFI, PACS, and SPIRE and the observation planning software HSpot, the 1.5 day workshop will cover many popular observing modes with hands-on examples. The workshop will allow potential users to refine their observing strategies with expert help from NHSC staff. The deadline for registration is 11 July. Registration information can be found on: <https://nhscsci.ipac.caltech.edu/sc/index.php/Workshops/OT2Planning>

Please note that NASA funding will be available for successful Herschel proposals. Details about both the proposal submission (deadline 15 September 2011) and the NASA funding call for US proposers (deadline 23 September 2011) can be found on: <https://nhscsci.ipac.caltech.edu/sc/index.php/Proposals/Proposals>

High School Students Selected to Represent the US Physics Team at the 2011 International Physics Olympiad

The AAS helps support the US Physics Team each year. Led by the American Association of Physics Teachers, a traveling team is selected from a larger number of physics team participants after their annual training camp. The 2011 team was just selected and is shown above. The AAS is a proud supporter of this annual event along with other AIP member societies. See <http://www.aapt.org/physicsteam/2011/pr20110531.cfm> for more information.

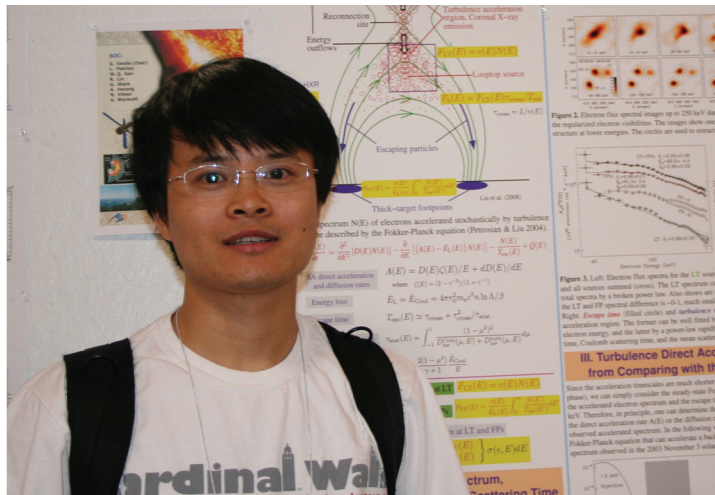


SPD Meeting, 12-16 June 2011, Las Cruces, NM

All photos are by David H. Hathaway, © 2011 American Astronomical Society.



Left: Outgoing SPD Chair Shadia Habbal presents Matthias Rempel with the Harvey Prize for outstanding work by a young researcher. **Right:** Student poster winner Qingrong Chen (Stanford) in front of his poster.



Left: Hale Prize winner Henk Spruit (left) and Parker Lecturer Marc Pinsonneault (right) discuss solar/stellar physics on a White Sands dune by moonlight (far right). **Right:** Solar scientists (left-to-right) Ron Moore, John Leibacher, Peter Foukal, Gary Chapman, and Gordon Petri left in the dark on white sands.



Left: Meeting attendees tour the solar facilities on Sacramento Peak. **Right:** Lisa Rightmire kisses the Sun goodnight.

Honored Elsewhere

Steve Maran to Receive 2011 AIP Gemant Award

Stephen P. Maran, former press officer and now senior advisor with the American Astronomical Society (AAS), has been chosen by the American Institute of Physics (AIP) as the 2011 recipient of the Andrew W. Gemant Award for significant contributions to the cultural, artistic, or humanistic dimension of physics. The award is made possible by a bequest of Andrew Gemant to the AIP.

Maran is an astronomer and science writer with decades of experience in the space program. The author or editor of 12 books and more than 100 popular articles on astronomy and space exploration, and many more scientific publications, he retired from NASA on 1 October 2004, after more than 35 years with the agency. On 31 August 2009, he retired after 25 years (most of them overlapping with his NASA service) as AAS press officer.

AAS Members Among Elected AAAS Fellows

The AAAS Council elected 503 members as Fellows of AAAS. These individuals were recognized for their contributions to science and technology at the Fellows Forum this past February at the AAAS Annual Meeting in Washington, D.C.

Dale P. Cruikshank, NASA Ames Research Center
Wendy Freedman, The Observatories of the Carnegie Institution of Washington
Lee W. Hartmann, University of Michigan
Bradley M. Peterson, Ohio State University
Marc Howard Pinsonneault, Ohio State University
Michael Werner, Jet Propulsion Laboratory, Pasadena
Aleksander Wolszczan, Pennsylvania State University

The American Association for the Advancement of Science (AAAS) is an international non-profit organization dedicated to advancing science around the world by serving as an educator, leader, spokesperson and professional association.

Sir Martin Rees Awarded Templeton Prize

The John Templeton Foundation announced that their 2011 million-pound Templeton Prize has been awarded to Prof. Martin Rees (Lord Rees of Ludlow) of Cambridge University. The nomination was provided

by Virginia Trimble of University of California, Irvine and Las Cumbres Observatory and the supporting letter by Robert Williams, President of the International Astronomical Union and past director of Space Telescope Science Institute.

The John Templeton Foundation serves as a philanthropic catalyst for discoveries relating to the Big Questions of human purpose and ultimate reality. We support research on subjects ranging from complexity, evolution, and infinity to creativity, forgiveness, love, and free will. We encourage civil, informed dialogue among scientists, philosophers, and theologians and between such experts and the public at large, for the purposes of definitional clarity and new insights.

AAS Members Among American Academy of Arts and Sciences 2011 Class of Members

Among those elected are the following scientists in the fields of astronomy, astrophysics and earth science include AAS Members:

H. Jay Melosh, University Distinguished Professor, Earth and Atmospheric Sciences and Physics, Purdue University
Yuk Ling Yung, Professor of Planetary Sciences, California Institute of Technology

The 212 new members join one of the nation's most prestigious honorary societies and a leading center for independent policy research. Members contribute to Academy studies of science and technology policy, global security, social policy and American institutions, the humanities, and education.

Since its founding in 1780 by John Adams, James Bowdoin, John Hancock, and other scholar-patriots, the Academy has elected leading "thinkers and doers" from each generation, including George Washington and Benjamin Franklin in the eighteenth century, Daniel Webster and Ralph Waldo Emerson in the nineteenth, and Albert Einstein and Winston Churchill in the twentieth. The current membership includes more than 250 Nobel laureates and more than 60 Pulitzer Prize winners.

Optical Society Honors Stephen M. Pompea

The Optical Society (OSA) has awarded Stephen M. Pompea the Esther Hoffman Beller Medal in recognition of sustained optics outreach activities to schools and colleges, authorship of hands-on optics curriculum books, and for leadership to realize and distribute Galileoscopes, a low-cost telescope kit for kids.

The Esther Hoffman Beller Medal is presented for outstanding contributions to optical science and engineering education. Consideration is given to outstanding teaching and/or original work in optics education that enhances the understanding of optics. The scope of the award is international. Candidates at every career stage should be considered. This award was endowed by a bequest from the estate of Esther Hoffman Beller, presented to OSA in 1992. The award was established in 1993.

“Gang Of Four” Receives \$500,000 Gruber Cosmology Prize

The Gruber Foundation and the IAU announced the winners of the 2011 Gruber Cosmology Prize: Marc Davis (Univ. of California, Berkeley), George Efstathiou (Kavli Institute for Cosmology, Cambridge, U.K.), Carlos Frenk (Univ. of Durham, U.K.), and Simon White (Max Planck Institute for Astrophysics, Germany). They will share the \$500,000 award for their pioneering use of numerical simulations to model and interpret the large-scale distribution of matter in the universe. Among their many accomplishments, the so-called “Gang of Four” showed that the filaments and voids revealed for the first time by the 1981 CfA redshift survey of galaxies could be explained by the influence of gravity from cold dark matter over the history of the universe. For more information about the 2011 Gruber Cosmology Prize, see http://www.gruberprizes.org/GruberPrizes/Cosmology_PressRelease.php?awardid=63 and http://www.iau.org/public_press/news/detail/iau1103/

Two AAS members Win \$1M Shaw Prize in Astronomy

Awarded in equal shares to Enrico Costa, Director of Research at the Institute of Space Astrophysics and Cosmic Physics (Rome) of the National Institute of Astrophysics, Italy and to Gerald J. Fishman, Chief

Scientist at the NASA – Marshall Space Flight Center, USA for their leadership of space missions that enabled the demonstration of the cosmological origin of gamma ray bursts, the brightest sources known in the universe.

The Shaw Prize is an international award managed and administered by The Shaw Prize Foundation based in Hong Kong. Mr Shaw has also founded The Sir Run Run Shaw Charitable Trust and The Shaw Foundation Hong Kong, both dedicated to the promotion of education, scientific and technological research, medical and welfare services, and culture and the arts.

2011 Bruce Gold Medal Goes to Jeremiah P. Ostriker

The Astronomical Society of the Pacific (ASP) announced that Jeremiah P. Ostriker has been awarded the 2011 Catherine Wolfe Bruce Gold Medal for lifetime achievement in astronomy.

Ostriker, Professor of Astronomy at Princeton University, received his B.A. from Harvard University and his Ph.D. from the University of Chicago, subsequently performing post-doctoral work at Cambridge. Joining the Princeton faculty in the 1960's, Ostriker advanced to Professor in 1971, became Chair of the Department of Astrophysical Sciences in 1979, and served as university Provost from 1995 until 2001. From 2001 to 2003, he held the post of Plumian Professor of Astronomy and Experimental Philosophy at the Institute of Astronomy at Cambridge (UK). He returned to Princeton to direct the Princeton Institute for Computational Science and Engineering, and presently serves as treasurer of the National Academy of Sciences.

Among his many other honors, Ostriker has received the Warner Prize and the Henry Norris Russell Lectureship from the AAS, and the U.S. Medal of Science.

Awarded in most years since 1898, the Bruce Gold Medal is recognized as one of astronomy's most prestigious awards. Previous winners include such influential astronomers as Walter Baade, Edwin Hubble, George Ellery Hale, Jan Oort, Arthur Stanley Eddington, Lyman Spitzer, Jr., Yakov B. Zel'dovich, Subrahmanyan Chandrasekhar (Ostriker's Ph.D. supervisor) and Rashid Sunyaev.

Agency News

News from NSF Division of Astronomical Sciences (AST)

Jim Ulvestad, Division Director, julvesta@nsf.gov

AST Portfolio Review

As we stated in the last issue of this newsletter, AST expects to conduct a community-based review of its portfolio balance in the next year, with a view toward optimizing the community's ability to deliver the science program recommended by the decadal survey. Nominations for membership on the Portfolio Review committee will be open through Friday, 15 July. For more information about the progress of the review and for instructions on submitting nominations for committee membership, please see http://www.nsf.gov/mps/ast/ast_portfolio_review.jsp.

FY 2011 Budget Information

At the time of writing in early June, Congress has appropriated a budget for the National Science Foundation for the remainder of the fiscal year, through 30 September 2011; the appropriated budget represents a slight cut from FY 2010 levels. NSF still does not have an approved operating plan for FY 2011, so we do not yet have final budget numbers for AST. We expect to have those numbers near the time of publication of this column.

Enhancing Access to the Radio Spectrum (EARS)

Some of you may have noticed a potentially significant new NSF program called Enhancing Access to the Radio Spectrum (EARS), which was proposed in the President's FY 2012 budget request. This program grew out of the electromagnetic spectrum management unit within AST, but is a much bigger activity that would address research in spectrum efficiency and spectrum access across many disciplines. This topic has become a national priority, and we are excited that NSF in general, and AST specifically, may play a major role. As a significant consumer of radio spectrum, and as a developer of advanced instrumentation and technology that are relevant to the topic, we anticipate that the radio astronomy field could be one of the many beneficiaries of the EARS program. EARS funding will depend upon the outcome of Congressional legislation; hence there is no certainty that EARS will be funded at any level. One thing that is certain, however, is that an EARS-themed Small Business Technology Transfer (STTR) competition will be held in FY12, with a solicitation expected later this summer. Please keep an eye on the EARS Web page (tinyurl.com/nsfears) or contact the

EARS program director, Andrew Clegg (aclegg@nsf.gov), for more information on EARS in general and on the upcoming STTR competition.

Individual Investigator Grants for FY 2012

Proposal season is ahead. Proposers are encouraged to read the latest Grant Proposal Guide (GPG) for requirements on proposal contents and formatting. If you don't want to have your proposal returned without review, please ensure that all required elements are included (e.g., facilities usage, postdoctoral mentoring plan, data management plan). FastLane blocks submission if some items are missing, but is agnostic about the presence of others, so it is still the proposer's responsibility to ensure that all required elements are included. One of the biggest reasons for return of proposals is a failure to report on the results of prior NSF support for all PIs and CoPIs; this report must be included within the main project description. There are also restrictions on font and margin sizes to ensure that all proposals have the same amount of space to make their case, and for readability by proposal reviewers. We strongly suggest printing a copy of your proposal from FastLane to verify that all contents and formatting are correct. If you have questions, consult the GPG, check FastLane Help, or contact your friendly NSF program officer, rather than risking the return of your proposal for failure to follow NSF-wide policies.

Upcoming proposal deadlines for some of the most popular NSF-wide or AST programs are given below. Note that the CAREER deadline listed is appropriate for the Mathematical and Physical Sciences Directorate; CAREER proposals related to some NSF Directorates have deadlines a day or two earlier:

27 July	Faculty Early Career Development (CAREER)
24 August	Research Experiences for Undergraduates (REU)
12 October	Astronomy & Astrophysics Postdoctoral Fellowships (AAPF)
1 November	Advanced Technologies and Instrumentation (ATI)
15 November	Astronomy & Astrophysics Research Grants (AAG)
26 January	Major Research Instrumentation (MRI)

Arecibo Observatory Management Competition

A competition for management of the Arecibo Observatory was conducted over the past year, following the National Science Board policy that the management of all major NSF facilities should be competed on the expiration of their cooperative agreements. This competition has been carried out by AST and our partners, the Atmospheric and Geospace Sciences (AGS) division of the Geosciences Directorate of NSF. The management of Arecibo from FY

2012 through FY 2016 has been awarded to a consortium led by SRI International. At present, a transition is under way from the previous awardee, Cornell University, to SRI, with an expectation that SRI will be fully responsible for operations of Arecibo Observatory beginning on October 1st. AST looks forward to a strong working relationship with SRI, and we thank Cornell for its stewardship of Arecibo Observatory over the past 50 years.

News from the Astronomical Society of the Pacific (ASP)

James Manning, Executive Director

Making Noise Through Publishing

Search for the truth is the noblest occupation of man; its publication is a duty. - Madame de Staël

Remember that old philosophical chestnut asking if a tree falls in the forest and no one is around to hear it, does it make a sound? By the same token, does scientific research really exist until and unless one's peers can read it? Hence one impetus (among many) to publish.

This goes for graduate students as well as research veterans, and the Astronomical Society of the Pacific (ASP) provides an opportunity for newly minted PhD's to publish summaries of their dissertations in its peer-reviewed journal, *Publications of the Astronomical Society of the Pacific (PASP)*. In fact, two such dissertation summaries can be found in the April 2011 issue.

Summaries of one to two pages, including well-chosen figures, are welcomed from astronomers who have completed their thesis research at any degree-granting institution in the world within the past year. Guidelines for submission can be found at www.jstor.org/page/journal/publastrsocipaci/instruct.html, along with other information useful to authors. Standard page charges apply, but the charge for the first page of a dissertation summary will be waived for ASP members, existing or new.

This is one useful way for young researchers to get their overall thesis work out to a wide audience; check it out. If

you have spent time chopping at that tree, it ensures that everyone has a chance to hear the noise you are making!

In addition, the *PASP* welcomes a wide variety of submissions, including research papers on all areas of astronomy, papers on instrumentation and software, review papers, and conference summaries. The same link above provides information on all.

The ASP also publishes its long-running Conference Series of some of the leading astronomical conferences held each year as part of its ongoing mission to provide useful resources and avenues of communication for professional astronomers and to advance the science. If you have a cool conference upcoming, check the series out at www.aspbooks.org.

Science is about the search for truth, and as that 19th century revolutionary, romantic, and writer Madame de Staël once said, the publication of same is a duty. The ASP is pleased to be one of the Societies that assists the astronomical community in fulfilling that noble obligation. Let us know how we can help in other ways. And if you are interested in subscribing to the *PASP* as an ASP technical member or acquiring volumes of the Conference Series, check out the publications section on our web site, www.astrosociety.org to find out how.

Here's to continuing the search, and making some noise!

Calendar of Events

AAS & AAS Division Meetings

12th Divisional HEAD Meeting

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

43rd Annual DPS Meeting

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

44th 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

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 Asteroseismic 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/>

NASA Lunar Science Forum

19-21 July 2011, Moffett Field, CA
<http://lunarscience2011.arc.nasa.gov/>

Center for Astronomy Education (CAE) Workshop

23-24 July 2011, The Big Island of Hawai'i
<http://astronomy101.jpl.nasa.gov/workshopdetails/index.cfm?workshopID=89>

2011 Sagan Summer Workshop: Exploring Exoplanets with Microlensing

25-29 July 2011, Padasena, CA
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

31 July-3 August 2011, Baltimore, MD
Albert Silva (asilva@astrosociety.org)
<http://www.astrosociety.org/2011meeting>

2011 X-ray Astronomy School

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

*8th Chandra/CIAO Workshop

6 August 2011, Cambridge, MA
Antonella Fruscione
(afruscione@cfa.harvard.edu)
<http://cxc.harvard.edu/ciao/workshop/>

12th Annual Summer School on Adaptive Optics

7-12 August 2011, Santa Cruz, CA
Leslie Ward (laward@ucolick.org)
<http://www.cfao.ucolick.org/aosummer/2011/index.php>

Stars, Companions, and their Interactions: A Memorial to Robert H. Koch

10-12 August 2011, Villanova, PA
Bruce Holenstein
(RHKochConference@Gravic.com)
www.gravic.com/RHKochConference

Structure and Dynamics of Disk Galaxies

12-16 August 2011, Petit Jean Mountain, AR
Marc Seigar (mxseigar@ualr.edu)

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

*The 20th CALCON Technical Conference (Annual Conference on Characterization and Radiometric Calibration for Remote Sensing)

29 August-1 Sept 2011, Logan, UT
Stephanie Halton
(stephanie.halton@usurf.usu.edu)
<http://www.spacedynamics.org/conferences/calcon/>

*The Future of Astronomy: Fellows at the Frontiers of Science

31 August-3 Sept 2011, Evanston, IL
Nick Cowan
(n-cowan@northwestern.edu)
<http://ciera.northwestern.edu/frontiers/>

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

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/>

***MW2011: The Milky Way in the Herschel Era: Towards a Galaxy-scale view of the Star Formation Life-cycle**
19-23 September 2011, Angelicum Congress Centre, Rome, Italy
<http://mw2011.ifs-roma.inaf.it>

***Sterile Neutrinos at the Crossroads 26-28 Sept 2011, Blacksburg, VA**
Patrick Huber (snac@phys.vt.edu)
<http://www.cpe.vt.edu/snac/>

Joint Assembly: CPS 8th International School of Planetary Sciences & JSPS-DST Asia Academic Seminar
26 September - 1 October 2011, Minami-Awaji Royal Hotel
<https://www.cps-jp.org/~pschool/pub/2011-09-26/index.html>

Through the Infrared Looking Glass: A Dusty View of Galaxy and AGN Evolution
2-5 October 2011, Pasadena, CA
<http://www.ipac.caltech.edu/exgal2011/>

IAU Symposium 286: Comparative Magnetic Minima: Characterizing Quiet Times in the Sun and Stars
3-7 October 2011, Mendoza, Argentina
iaus286@iafe.uba.ar

***Decoupling Civil Timekeeping from Earth Rotation**
5-6 October 2011, Exton, PA
Rob Seaman (seaman@noao.edu)
<http://futureofutc.org/>

***100th Annual Meeting of the American Association of Variable Star Observers (AAVSO)**
5-8 October 2011, Boston, MA
Rebecca Turner (rebecca@aaavso.org)
<http://www.aavso.org/aavso-100th-annual-meeting>

Fourth Biennial Frank N. Bash Symposium
9-11 October, 2011, The University of Texas Department of Astronomy and McDonald Observatory
www.bashsymposium.org

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/>

Hinode 5
11-14 October 2011, Cambridge, MA
Kathy Reeves (kreeves@cfa.harvard.edu)
<http://hinode5.cfa.harvard.edu/>

AGN Winds in Charleston
15-18 October 2011, Charleston, SC
Dr. George Chartas (chartasg@cofc.edu)
<http://chartasg.people.cofc.edu/winds4/winds/Welcome.html>

***Signposts of Planets**
18-20 October 2011, Greenbelt, MD
Marc.Kuchner@nasa.gov
<http://science.gsfc.nasa.gov/667/conferences/signposts.html>

***Galaxy Mergers in an Evolving Universe**
23-28 Oct 2011, Hualien, Taiwan
<http://events.asiaa.sinica.edu.tw/workshop/20111023/registration.php>

***First International Planetary Cave Research Workshop: Implications for Astrobiology, Climate, Detection, and Exploration**
25-28 October 2011, Carlsbad, NM
Tim Titus (ttitus@usgs.gov)
<http://www.lpi.usra.edu/meetings/caves2011/>

21st Midwest Relativity Meeting
4-5 November 2011, Univ of Illinois at Urbana-Champaign
Vasileios Paschalidis (vpaschal@illinois.edu)

Workshop on the Formation of the First Solids in the Solar System
7-9 November 2011, Kauai, HI
Sasha Krot (sasha@higp.hawaii.edu)
<http://www.lpi.usra.edu/meetings/solids2011/>

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

Portable Meter-Class Astronomy
20-22 January 2012, Waimea, HI
Russell Genet (RussMGenet@aol.com)
Bruce Holenstein (BHolenstein@gravic.com)
www.AltAzInitiative.org

***The Physics of Astronomical Transients**
21-27 Jan 2012, Aspen Center for Physics
Enrico Ramirez-Ruiz (enrico@uclink.berkeley.edu)
<http://cargo.ucsc.edu/tasc/aspen/>

***First Light and Faintest Dwarfs: Extreme Probes of the Cold Dark Matter Paradigm**
13-17 Feb 2012, KITP, UC Santa Barbara
Julio F. Navarro (kitpconf@kitp.ucsb.edu)
<http://www.kitp.ucsb.edu/activities/dbdetails?acro=dwarfgal-c12>

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. 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 cadwww.hia.nrc.ca/meetings.

Washington News

Bethany Johns, John Bahcall Public Policy Fellow, bjohns@aas.org



Local visits with your member of Congress can have a more profound impact than visiting them at Capitol Hill. A local visit with your member of Congress is when you schedule an appointment with him or her during Congressional recess when they are

back in their state.

Please consider scheduling a meeting with your member of Congress during the summer recess from 8 August to 2 September 2011.

If you try to visit your Congressman or Congresswoman in Washington, DC then you are more likely to meet with a legislative aide. Congress is typically busy with debate, voting, and hearings while on the Hill in Washington. During the days when they are back in their home state they make an effort to connect with their voters. Many have town halls or other opportunities for voters to express concerns, ask questions, or comment on an issue. Bottom line: When the Congressman or Congresswoman returns to their home state, they are trying to connect with you, want to hear from you, and want your vote.

To schedule a local visit with your members of Congress:

1. Find your members of Congress. You have two Senators and at least one Representative. You may have more than one Representative if you live in one district and work in another. You can find your members of Congress with the AAS ZIP-To-It (Map Interface) using your zip code at <http://aas.org/policy/aas.bios.html>
2. Go to their website to find the contact information of the local offices. Senators will have many local offices to serve the whole state. Representatives will have a least one office within the district or more depending on the size of the district.
3. Call or email the local office to setup a local visit while the Congressman or Congresswoman is in the state

There are three stages to organizing an effective visit: preparation, the meeting, and follow up.

Be prepared. Members of Congress appreciate you coming to them about your issue. They appreciate it even more when you are aware of how they have supported your issue. Before you meet face-to-face do your homework and check their stance on the issue you are talking to them about and look up their voting record on the issue. You can find most of this information from their website.

At the meeting, have a clear concise statement on what you are asking for. Start by thanking the Congressman or Congresswoman for their time. Tell your personal story and explain how what you are asking for directly affects you. Resist the sentiment of entitlement. You may think your research is most fascinating and inspires young scientists, but there is other government funded research that is also fascinating and inspires youth. Answer questions honestly and admit when you do not know the answer. Offer to serve as a resource and invite them to your facility, observatory, or university.

You must follow-up after your visit. Email or write to thank the member of Congress again for meeting with you. You may have been asked a question which you didn't know the answer. Research the question and answer them in the follow-up. Reiterate your issue and what you are asking for in your letter. Do not let visits or communications be a one-time deal. Keep the line of communication open and make talking with your member of Congress a part of your professional life.

Finally—do no harm. This is the first rule when meeting with a member of Congress. You want to make sure your issue gets a positive reception and that you do not cut your line of communication to your member of Congress.

We are in tough economic and political times. Make an effort to speak to your members of Congress often. Be a vocal constituency. Express support, showing concern and sharing your personal story are excellent ways to engender Congressional support for our science.

Follow AAS Public Policy online at blog.aas.org or on Twitter @AAS_CAPP or @AAS_Bethany_J