### March/April 2009 Issue 145

**3** Council Actions

### 4

AAS Election Results

4

Pasadena Meeting

6

Highlights from Long Beach

14

2009 AAS Prize Winners

### 16

Community Service Activities at Ritter Observatory

Back page

Washington News



# AAS Newsletter A Publication for the members of the American Astronomical Society

# President's Column

John Huchra, president@aas.org

I have just come back from the Long Beach meeting, and all I can say is "wow!" We received many positive comments on both the talks and the high level of activity at the meeting, and the breakout town halls and special sessions were all well attended. Despite restrictions on the use of NASA funds for meeting travel we had nearly 2600 attendees. We are also sorry about the cold floor in the big hall, although many joked that this was a good way to keep people awake at 8:30 in the morning. The meeting had many high points, including, for me, the announcement of this year's prize winners and a call for the Milky Way to go on a diet—evidence was presented for a near doubling of its mass, making us a one-to-one analogue of Andromeda. That also means that the two galaxies will crash into each other much sooner than previously expected. There were kickoffs of both the International Year of Astronomy (IYA), complete with a wonderful new movie on the history of the telescope by Interstellar Studios, and the new Astronomy & Astrophysics Decadal Survey, Astro2010 (more on that later). We also had thought provoking sessions on science in Australia and astronomy in China. My personal prediction is that the next decade will be the decade of international collaboration as science, especially astronomy and astrophysics, continues to become more and more collaborative and international in nature.

This is also a good time to bring you up to date on Society actions. The Council is now meeting for a day and a half or two days before the start of each meeting. Our goals, for this extra time were set by my predecessor J. Craig Wheeler, and are to spend a day informally discussing long term, major AAS issues followed by the main business meeting of the Council. This allows us to spend much more time on strategic issues and public policy, both key to the health of the profession and the Society. We initiated a number of activities including the development of a long term (strategic) plan for the AAS, the development of an "ethics," or professional responsibility statement for the Society which likely will be modeled after the statement the American Physical Society (APS) adopted several years ago. We are also continuing the search for a new Editor of the Astronomy Education Review (Sidney Wolff has graciously agreed to chair the new search committee), and have instituted a review of all the Society's education activities to feed into our strategic plan (Vice President Lee Hartmann is chairing this activity). We expect these three activities to report out for action by the Council in June, so please send comments to the appropriate folks. The transition of the Journals management to IOP from the University of Chicago Press is essentially complete but there are still some hiccups to be dealt with. IOP's electronic system for handling manuscripts is different from the system that was specifically developed for the  $A \not I$  a decade ago. Patience. Last but not least, the Society will experiment with providing childcare services at reduced cost to members for the next three winter meetings. This will likely result in a very small increase in registration fees, but should enable members with young children to participate when they otherwise might not be able to do so. The Society also will continue its small grants program for childcare.

With the official start of Astro2010, the time has come for all US astronomers to provide input to the Survey Committee and its panels and study groups. The process for the current survey, unlike that for previous A&A decadal surveys, will start with the assembly of key science questions for the next decade. The scientific problems will then be used as a part of the process for prioritizing projects and programs. There are several important routes for providing input. First there is a call for white papers on science. The deadline for science white papers is in mid-February. There is also a call for position papers on topics related to the state of the profession. The deadline for these position papers is mid-March. More information on guidelines for content and the submission process can be found at the Astro2010 website: http://www7.nationalacademies.org/bpa/Astro2010.html

AAS Officers and Councilors John P. Huchra, President J. Craig Wheeler, Past-President Robert W. O'Connell, Vice-President Lee W. Hartmann, Vice-President Christine Jones, Vice-President Hervey (Peter) Stockman, Treasurer John A. Graham, Secretary Richard F. Green, Publications Board Chair Timothy F. Slater, Education Officer Stephen P. Maran, Press Officer

Councilors

Megan Donahue Margaret M. Hanson Chryssa Kouveliotou Felix J. Lockman Nancy Morrison Marc Postman Nicholas B. Suntzeff C. Megan Urry Charles E. Woodward

**Executive Office Staff** 

Kevin B. Marvel, Executive Officer Tracy Beale, Membership Services Administrator Chris Biemesderfer, Director of Publishing Laronda Boyce, Meetings & Exhibits Coordinator Lisa Brown, Financial Assistant Kelly E. Clark, Chief Financial Officer Scott Garvey, Administrative Assistant Kelli Gilmore, Director of Meeting Services Scott Idem, Systems & Network Manager Chris W. Irwin, Assistant Systems & Web Admin. Judith M. Johnson, Managing Editor AER & BAAS Faye C. Peterson, Manager, Membership Services Crystal M. Tinch, Communications & Development Pamela D. Wallace, Meetings Manager

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.

The \$141.00 annual membership dues for the American Astronomical Society include \$3.00 that is applied toward a subscription to the *AAS Newsletter*. Periodical postage paid at Washington, DC.

POSTMASTER: Send address changes to AAS, 2000 Florida Ave, NW, Suite 400, Washington, DC 20009-1231.

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 www.aas.org/ publications/newsletter.php. Items submitted to the AAS Newsletter are not automatically included in the AAS Electronic Announcements or vice versa. Submit electronic announcement items to crystal@aas.org.

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

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

For address changes, email address@aas.org

## From the Executive Office

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

Well, as I write this, the Long Beach meeting has just ended, Washington is gearing up for the inaugural week festivities (Mayor Adrian Fenty has already asked for federal emergency designation, freeing up FEMA to help pay for some of the activities, or, more likely, the cleanup process) and your AAS executive office staff are already gearing up for the summer AAS meeting to be held in Pasadena, CA.

The fact that we are meeting in the same county twice in the same year may be a record for the modern AAS, generally we have rotated our meetings geographically so that no fraction of our membership is disadvantaged by additional travel costs. The locations for our meetings have always been selected by our Council and, not surprisingly, the selection has always come with much debate and discussion. I was curious as to why we ended up in Long Beach and subsequently Pasadena and dug through old meeting minutes. I did not find any real explanation, except that the meeting locations were chosen at separate Council meetings (we have to book winter meeting locations further in advance than summer meetings). So, in response to the numerous comments I have received on this puzzling situation, I tried to figure it out and could not, but view it as an anomaly from our normal mode of operation. Future meetings return to a rotating geographical cycle, with the January 2010 meeting being held in Washington, DC.

The Council has undertaken the creation of a compact strategic plan, basically putting in (brief) text the underlying goals for our organization. I welcome this activity as it helps all of us, especially here in the Executive Office, understand where our priorities lie. We publish journals, hold meetings and disseminate information of all types while fostering communication within our field and with those outside our discipline.

Although the minutes of our Council meetings are public records and we put the most important financial and other information in our annual report, few members are truly aware of many aspects of how our Society operates. I will be using this column in the next several issues to shine a little light on the nittygritty of Society operations and I hope you will all find it useful.

As a final note, the Pasadena meeting will host open sessions for the Decadal Survey of Astronomy and Astrophysics (the Astro2010 committee). We invited the NRC to hold these important sessions at our meeting to encourage greater participation. I hope that many of you will plan on attending the meeting to attend one or more of these sessions. Although meeting registration will not be required to attend the open sessions, registration is required for all other aspects of meeting attendance including the invited talks, receptions, cocktail hours and splinter meetings. The Vice President's have created an exciting and vibrant scientific program with many invited speakers and special sessions as well as our summer-only Meeting-in-a-Meeting sessions. See you all back in California in June!

There has also been a call for the organization of regional Town Halls to provide opportunities for both discussion in the community and input to the committee. Ideally these town halls should be self-organized by departments and observatories (and not the survey committee itself) with attendance by survey committee members. Roger has asked that the organizers provide a record of the discussions at these town halls, also as input to the Survey committee as a whole. One such town hall has been organized at the American Physical Society meeting 4-5 May in Denver, and hopefully several others will be organized across the country before the Survey Committee's next meeting in mid-May. This is your survey! Participate in both the process and in making its recommendations come true. The International Year of Astronomy is now underway. Many, many events and activities have been organized by the AAS and the ASP, and by museums, science centers, planetariums, local astronomy clubs and other organizations. The goal of the IYA is to bring astronomy to the public in ways we never have before. We would like to see everyone in the world gaze at the night sky at least once this year and contemplate our place in the cosmos and how the universe works. We owe it to the field and to ourselves to make this effort a grand success. Go out and participate! If there is nothing happening in your neck of the woods, organize an event, even a simple star party, yourself. Visit an elementary school classroom or better yet bring a class to your observatory. If there are local events, volunteer. The Universe is yours to discover!

# **Council Actions**

Council Actions Taken at the 213th Meeting of the Council of the American Astronomical Society in Long Beach, CA, 4 January 2009

1. The AAS Council approved the following Executive Committee actions:

a) The signing on to a letter expressing concern that an extended Continuing Resolution for the FY 2009 appropriation would hamper the National Science Foundation's ability to carry out programmatic plans and would create hardships and uncertainty for students and researchers.

b) The signing on to a letter to the US Presidential Candidates urging that the next President seek out and rely upon sound scientific and technical advice in the new Administration.

c) The motion that was passed unanimously in a phone meeting of the Executive Committee that allows the Executive Officer, working with AAS lawyers to reach a negotiated financial settlement with the University of Chicago Press to resolve financial budget overages.

d) The creation of a Council subcommittee to examine the role of the AAS education program in the overall portfolio of AAS activities.

e) A statement on the importance of planetariums as an effective means to educate the public about the wonders of the sky

f) AAS Divisions will be offered booth space at Society meetings free of charge.

g) Approved the new Pension Plan documents for the employees of the AAS.

2. Hervey (Peter) Stockman was re-appointed to a term (2009-2012) on the Governing Board of the American Institute of Physics.

3. Carol Christian was appointed as AAS representative on the American Institute of Physics State Department Fellowship selection committee.

4. The recommendations of the AAS Prize Committees for the awards of the 2009 AAS prizes were accepted.

5. The appointments to the AAS Prize Committees as proposed by the Appointments Committee were approved.

6. The Audit Committee for 2009 was appointed.

7. A new search committee was appointed to seek an Editorin-Chief for the *Astronomy Education Review* with Sidney C. Wolff as Chair.

8. The AAS committed to providing a fee-based subsidized child-care service at the next three AAS winter meetings.

9. Melissa McGrath was appointed as Associate Editor of the *Astronomical Journal* for a two-year term.

10. The President was directed to form and to chair a committee to develop a statement on conduct of research and ethics in research for discussion at the Pasadena meeting.

11. The AAS Council recognized the 100th anniversary of Henrietta Leavitt's first presentation of the Cepheid Period-Luminosity relation, a seminal discovery in astronomy that continues to have great significance. The Council was pleased to learn of a resolution adopted by the organizers of the Leavitt Symposium held in which it was suggested that this important relation now be referred to as the "Leavitt Law." Although we recognize that the AAS has no authority to define astronomical nomenclature, we would be very pleased if this designation were used widely.

12. The AAS Council gave its support to the preparation of a proposal by the AAS to host the General Assembly of the International Astronomical Union in Hawaii in 2015 in partnership with the University of Hawaii Institute for Astronomy in conjunction with a joint summer meeting of the AAS.

13. In executive session, the AAS Council reviewed and commended the performance of the Executive Officer and voted on a salary increase for 2009.

# Secretary's Corner

#### **AAS Election**

The results of the latest AAS election are presented below. The Society thanks all who agreed to stand for election, for their commitment and service to the community, and congratulates the winners. New AAS Officers and Councilors begin their terms after the Annual Business Meeting on 7 June 2009 at the Pasadena Meeting.

President (2010-2012) Debra Elmegreen	USNC-IAU, Cat. I (2010-2013) Brian Chaboyer
Vice-President (2009-2012) Lee Anne Willson	Nominating Committee (2009-2012) Thomas Bania Gina Brissenden
Education Officer (2009-2012) Timothy F. Slater	

Councilors (2009-2012) Richard French James Lowenthal Jennifer Wiseman

#### Committee Vacancies Need to be Filled

Vacancies for several AAS committees will be filled by Council at its meeting at Pasadena, California in June 2009. Current committee members are listed under Council/Committees on the AAS homepage, www.aas.org.

AAS Members may themselves volunteer, or suggest other Members for one of the vacancies. Think about areas in which your own particular background might be helpful to us. Committee activity also is a very good way of getting to know other members and can be fun as well. To assist members of the Committee on Appointments who may not know everyone, please include the date of PhD, as well as a few sentences conveying the background and area of expertise of the named individual. Our goal is to have both quality and breadth across the AAS committee structure. Please let us know if you think you could help.

Input must be received in the Office of the Secretary no later than 30 April 2009. Submit suggestions to John Graham, AAS Secretary, by email to aassec@aas.org or at the Department of Terrestrial Magnetism, 5241 Broad Branch Road, N.W., Washington, DC 20015, Tel:202-478-8867, Fax: 202-478-8821.

# 214 Meeting of the AAS - Pasadena

The AAS 214th meeting will take place 7-11 June 2009 in the newly renovated Pasadena Convention Center in Pasadena, California.

Pasadena is a major center for Astronomy research and the perfect venue for an AAS summer meeting, with a variety of activities available both before and after the meeting, in easy walking distance of the Convention Center. Several hotels will be used to house meeting attendees, all within an easy walk under the pleasant skies of southern California.

This meeting will host open sessions of the Decadal Survey process. Each of the subcommittees will hold all-day (except during plenary talks) sessions to receive input from the community.

The meeting will have an exciting program of invited speakers and feature the first full meeting in a meeting program (MiM). Highlighting these activities is another Bridging the Laboratory and Astrophysics multi-day session. This successful series has focused on connecting the active world of laboratory astrophysics with observers and theorists in astrophysics. This meeting will feature a focus on molecules, especially how to study them from the IR to the submm regime. Other science sessions include Spitzer Exploration Science, Science with Adaptive Optics on Large Telescopes, Science with the WIYN One Degree Imager, and 2010-2020: The Decade of Astrometry. Special sessions accepted by your Vice President's for inclusion in this meeting include Planet Classification in the 21st Century, New Media in the International Year of Astronomy, The Cosmic Evolution Survey - COSMOS, IYA2009 Cornerstone Projects, IYA2009 Outreach Reports from the Field, IYA2009 Citizen Science Programs, Follow-Up Observations of Exoplanet Transits, and Astronomy with WISE.

Remember that summer meetings now allow posters to be up for two full days, enhancing the time available for interaction with your colleagues. Deadlines and information are available on the AAS web page.

Additionally, the planning committee, led by senior VP Bob O'Connell, has selected eleven exciting invited speakers to address the Society on a wide range of topics and three prize winners will present lectures as well. We cannot promise that our meeting will outshine the bright lights of Hollywood from the foothills of Pasadena, but the combination of the Decadal Survey sessions, so important to the future of our field, and the exciting scientific program are sure to energize all attendees and foster collaboration and discussion for the rest of the year. We hope to see you there!

# Staffer Returns from Afghanistan



Chris Irwin, the Systems & Web Assistant at the AAS Executive Office, returned recently from a tour of duty with the US Air Force in Afghanistan, where he serviced avionics with the same expert professional skills that he usually devotes to our computer systems. He presented an American flag that flew aboard an A-10 in Afghanistan to AAS President John Huchra (at right, holding the folded flag) and Executive Officer Kevin Marvel (center, with certificate) at the Council meeting on 4 January, in Long Beach, CA.

# **AAS Member Anniversaries**

The AAS could not have done it without you. Thank you for your dedication and service.

### 25-34

Priscilla J. Benson Chryssa Kouveliotou Alan P. Marscher Dave Monet Curt Struck John Thorstensen Jacqueline van Gorkom Faith Vilas

### 35-44

Joe Alexander Kirk Borne Richard P. Boyle You-Hua Chu Theodore R. Gull J. Patrick Harrington William B. Hubbard Michael Jura Charles Lada Fred K.Y. Lo Nancy Morrsion Harold Reitsema Barry Turnrose Donna Weistrop Lee Anne Willson Ronald E. Zissell

### 45-54

Henry Albers Ronnie C. Barnes John C. Brandt Robert D. Chapman Pierre Demarque Jeff McClintock A.G. Davis Philip Arthur Upgren Charles Whitney

### 55-59

Helmut Abt Paul M. Routly Elske v.P. Smith

### 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 AAS Newsletter, 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

# Highlights from Long Beach

Almost 2600 astronomers and others attended the 213th AAS Meeting, 4-8 January at the Long Beach Convention and Entertainment Center, in Long Beach, CA. The entertainment ranged from serious invited papers such as the Russell Lecture and a talk in memory of former AAS President Donald Osterbrock, to the popular, as attendees helped kick off the International Year of Astronomy in the USA and watched the world premiere of a TV documentary on the history of the telescope.

The meeting was well covered in the news media, with reports appearing across the globe. An English-language article about the meeting, prepared by China's Xinhua news service, was posted on the website of Iran's *Tehran Times*. The meeting paper that made the most news was a reported 50 per cent increase in the known mass of the Milky Way. Besides newspaper and WWW articles, this finding was the subject of a Voice of America broadcast and also was featured on *The Colbert Report*, a popular US television comedy program. Except where otherwise credited, all pictures are AAS Photos by Kelley Knight Heins, ©2009 American Astronomical Society.



Left: Michael Jura (left, UCLA) presented evidence for possible asteroid collisions around white dwarfs. Peter Plavchan (center, Caltech) and Thayne Currie (Harvard-Smithsonian CfA) found that gas-giant exoplanets form rapidly. Middle: Brown dwarf researchers at the meeting included (l-to-r) Amy Mainzer (Jet Propulsion Lab.), Micaela Stumpf (Max Planck Institute for Astronomy, Heidelberg), and Sergio Dieterich and Todd Henry (both, Georgia State University). Right: Milky Way News: (l-to-r) Mark Reid found that the Galaxy is more massive than was known and also received the Beatrice M. Tinsley Prize, Daniel Wang released a Hubble Space Telescope Paschen-alpha mosaic of the central part of the Milky Way, and Elizabeth Humphreys found that new stars are forming near the central black hole. Humphreys and Reid are at CfA; Wang is with the U. Massachusetts, Amherst.



Left: Roger Romani (left, Stanford U.) and Alice Harding (NASA GSFC) described new pulsar findings from FERMI. Richard Mushotzky (NASA GSFC) described a hard X-ray survey of active galactic nuclei in the local Universe with Swift. Middle: Press Officer Steve Maran surprised Lynn Cominsky (Sonoma State U.) with a gift from the AAS before an audience of reporters. The gift, a crystal vase, was taken back and then presented again, this time by AAS President John Huchra, before science colleagues at the banquet. Cominsky served 10 years as a deputy press officer. Right: Bradley Schaefer (left, Louisiana State U.) searched observatory plate stacks for recurrent nova events. Kevin Pang (Pang and Associates) used a method due to Benjamin Franklin to analyze photometric records of a lunar eclipse in 1761.



Left: Jeonghee Rho detected an infrared CO overtone band in Cassiopeia A, which suggests that chemical processes and molecule formation continue more than 300 years after the supernova. Middle: In other investigations of Cas A, Daniel Patnaude (right, CfA) studied time-dependent effects with Chandra, and Tracey DeLaney (center, MIT) took data from Chandra, Spitzer and ground-based telescopes to create a 3-dimensional fly-through of the supernova remnant with the aid of software from the Astronomical Medicine project, headed by Alyssa Goodman (left, Harvard U.). Right: Key personnel who described the US program for IYA 2009 at the meeting included (l-to-r) Douglas Isbell (IYA 2009 USA press officer), James Manning (Astron. Society of the Pacific), Hashima Hasan (NASA HQ), Pamela Gay (Southern Illinois U.) and Stephen Pompea (National Optical Astronomy Obs.).



Left: Donald Olson (Texas State U.) gave the Donald Osterbrock Memorial Lecture, "Tales of Astronomy in Art, History, and Literature." He's shown here with Prof. Osterbrock's widow, Irene Hansen Osterbrock. Middle: Michael Bonaro, Edward Guinan, and Andrej Prsa (l-to-r, all, Villanova U.) observed eclipsing binary stars that stopped eclipsing. Right: Jason Prochaska (left, UC, Santa Cruz) and Yaron Sheffer (center, U. Toledo) detected molecular hydrogen and CO absorption in a galaxy at redshift 3.04, seen against the afterglow from a gamma-ray burst. Kyle Barbary (UC, Berkeley) monitored an optical transient with equal rise and fall times of 100 days, perhaps representing a new class of supernova.



Left: James Houck (Cornell U.) received the Joseph Weber Award for Astronomical Instrumentation and spoke briefly at the banquet. AAS Photo by Chris Irwin, ©2009, American Astronomical Society. Middle: AAS President John Huchra (left) posed with Rashid Sunyaev (Max Planck Institute for Astrophysics, Garching), who delivered the Henry Norris Russell Lecture, on "The Richness and Beauty of the Physics of Cosmological Recombination." Right: Huchra presented the Newton Lacy Pierce Prize to Lisa Kewley (U. Hawaii), who discussed "Spectral Diagnostics and Galaxy Evolution."

continued next page



Left: John Brandt (U. New Mexico) discussed the Aldebaran anomaly, a problem in Edmund Halley's early investigation of stellar proper motions. Middle: Eliot Quataert (UC, Berkeley), received the Warner Prize from President Huchra, and spoke on "New Forms of Convection in Galaxy Cluster Plasmas." **Right:** Christian Veillet (left, Director, Canada-France-Hawaii Telescope) attended a book signing honoring Govert Schilling (center), who wrote *The Hunt for Planet X* and Lars Christensen (ESO), lead author of *Hidden Universe*.



Left: Jong-Hak Woo (UCLA) investigated environmental effects on AGN activity and addressed an evening session of Korean and Korean-American astronomers. Middle: Dominik Riechers (left, Caltech) and Chris Carilli (Natl. Radio Astronomy Obs.) reported observations suggesting that the supermassive black holes found at galaxy centers may have formed before the central bulges in their respective galaxies. Right: Michael Seiffert (left, Jet Propulsion Lab.), Alan Kogut (center, NASA GSFC), and Jack Singal (SLAC) announced the discovery of a new component of the extragalactic background radiation, found by the ARCADE balloon experiment. Photo by Inge Heyer ©2009, American Astronomical Society.



Left: Gang Zhao (National Astronomical Observatories, China) described current and future large astronomical facilities in China. Middle: Raghvendra Sahai (Jet Propulsion Lab.) announced the discovery of a new class of luminous stars that he calls "ballistic stellar interlopers." Right: Jack Hehn (left, Director of Education, American Institute of Physics) presented the Dannie Heineman Prize for Astrophysics to Andrew Fabian (U. Cambridge), who lectured on black holes.



Left: Annie Jump Cannon Award winner Jenny Greene (Harvard U.) received the prize from President Huchra and spoke on "Building Black Holes and Bulges." Middle: The recipients of the High Energy Astrophysics Division's Bruno Rossi Prize (l-to-r), Maxim Markevitch (SAO), Patrick Henry (U. Hawaii), Steven Allen (Stanford U.) and Alexey Vikhlinin (CfA), discussed "Galaxy Clusters in X-rays: Physics and Cosmology." Right: Jeffrey Bennett autographs a children's book for a reporter. Bennett uses some of the proceeds of his *Beyond UFOs: The Search for Extraterrestrial Life and Its Astonishing Implications for Our Future* and from college textbooks to furnish thousands of free copies of his children's astronomy books to school systems.



**Left:** Participants in the Thirty Meter Telescope project who attended a press reception on the future observatory were (l-to-r) Charles Blue (TMT Press Officer), Raja Guhathakurta (UC, Santa Cruz), Michael Bolte (Director, U. California Observatories), Andrea Ghez (UC, Los Angeles), Betsy Barton (UC, Irvine) and Reed Riddle (TMT). **Right:** Astronomer/TV host Neil Tyson (far right, American Museum of Natural History) joined a group onstage at the IYA 2009 USA kick-off event. Kris Koenig (Interstellar Studios), producer of the TV documentary, *400 Years of the Telescope*, is at the podium.



Left: Douglas Lin (UC, Santa Cruz), explained the goals of the Kavli Institute for Astronomy and Astrophysics at Peking University, which became operational in 2007. Middle: Jennifer Butchart, Rachele Siegel, and Shana Kennedy (l-to-r, all, Oil City High School) coauthored a poster paper on educational activities that explore infrared light. Right: UC, Santa Cruz graduate students Mark Mozena and Anne Medling ran into "Galileo" at an evening event marking the start of the International Year of Astronomy in the USA. This "Galileo" is better known as Mark Thompson (Seal Beach, CA).

# News from NSF Division of Astronomical Sciences

Eileen D. Friel, Executive Officer, Division of Astronomical Sciences, efriel@nsf.gov

#### Upcoming Deadlines for FY2009 funding:

23 July 2009: CAREER (MPS) - Faculty Early Career Development Program – For information on the program see announcement NSF 08-557 or contact Dr. Brian Patten (bpatten@nsf.gov).

3 August 2009: Partnerships in Astronomy and Astrophysics Research and Education (PAARE) – For information see the program solicitation NSF 08-562 or contact Dr. Brian Patten (bpatten@nsf.gov).

Late summer 2009: Research Experiences for Undergraduates (REU) Sites – A new program announcement is under development at NSF, but major program changes are not expected. See the current solicitation NSF 07-569 or contact Dr. Brian Patten (bpatten@nsf.gov) for more information.

#### Management of NAIC

Consistent with the National Science Board Resolution on Competition and Recompetition of NSF Awards (NSB-08-12), NSF will compete the next cooperative agreement for the management and operation of the National Astronomy and Ionosphere Center (NAIC) through an open, merit-based review process. A Dear Colleague letter (NSF 09-014) that describes the NSF's intention and process for release of the solicitation is available at http://www.nsf.gov/pubs/2009/ nsf09014/nsf09014.pdf

The Division of Astronomical Sciences, in cooperation with the Division of Atmospheric Sciences of the Directorate for Geosciences, is currently preparing the program solicitation, which is expected to lead to the award of a single, five-year cooperative agreement for the management and operation of NAIC following the expiration of the current cooperative agreement in 2010. The solicitation will specify all program guidelines and proposal requirements, including budgetary information, review criteria, exceptions to NSF Grant Proposal Guide proposal preparation instructions, and a schedule for potential site visits and bidders' meetings.

All inquiries regarding this announcement and the competition for the management and operation of NAIC should be directed to Dr. Dana Lehr at (703) 292-7456 or dlehr@nsf.gov.

#### Schedule for proposal processing

NSF attempts to carry out the review, make funding decisions, and notify PI's of the outcome for the majority of proposals it receives within six months of the proposal deadline. While AST program officers work hard to achieve this goal, often external influences slow the process. This year, NSF is operating under a continuing resolution until early March 2009, and the uncertainty in NSF's (and AST's) budget are likely to cause a delay in the time to decision on proposals. Although we will carry out the review of proposals as swiftly as possible, PI's may find that we are unable to provide definitive news on the outcome as soon as we all would like. We encourage you to contact program officers for updates on the status of your proposal at any time and we will tell you what we can, but please realize that this may be a slower year than normal.

#### New Proposal requirements for Postdoctoral Mentoring

Because of the importance of this change, we again remind all PI's that NSF now requires that all proposals that request funding to support postdoctoral researchers include a separate section describing the mentoring activities that will be provided. The proposed mentoring activities will be evaluated as part of the merit review process under the NSF's broader impacts merit review criterion. **Proposals that do not include a separate section on mentoring activities within the Project Description will be returned without review.** 

The Grant Proposal Guide can be found as part of the Proposal and Award Policies and Procedures Guide at: http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=nsf091.

The 2009 International Science & Engineering Visualization Challenge is co-sponsored by the National Science Foundation (NSF) and the journal Science, published by the American Association for the Advancement of Science (AAAS).

Awards categories include: Photographs/ Pictures, Illustrations/Drawings, Informational/Explanatory Graphics, Interactive Media, and Non-Interactive Media.

Winning entries will be published in a special section of the 19 February 2010 issue of the journal *Science* and *Science Online* and on NSF's website. One winning entry will appear on the front cover of *Science*.

For more information, see: http://www.nsf. gov/news/scivis

ENTRY DEADLINE: 15 September 2009

# **Committee on Employment**

Marcel Bergmann, marcelbergmann@gmail.com

#### Soft Money Astronomy: Can you make it on your own?

It's the middle of the job hunting season, and at this past winter AAS meeting the Job Center was as busy as ever. Astronomers sifted through the Job Register looking for that perfect (or any) faculty, staff, or postdoc position which matched their science interests, desired teaching or support load fractions, and geographical restrictions. The more constraints one has, especially geographically, the more difficult it can be to find a job. A less well known option was presented during the well attended Special Session 231, "Portable Jobs: Soft Money and Research Institutes" organized by the AAS Committee on Employment. Six panelists from five soft money research institutes told the audience about their job histories, and the institutes they are now affiliated with, including Heidi Hammel and Barb Whitney from Space Science Institute (SSI, spacescience.org), Mallory Roberts from Eureka Scientific (eurekasci.com), Mark Sykes from Planetary Science Institute (PSI, www.psi.edu), Doug Braun from NorthWest Research Associates (NWRA, www.nwra.com), and Susan Terebey representing the nowdefunct Extrasolar Research Corporation. "Soft" money here refers to grant money, often considered less dependable than "hard" money such as university or observatory salaries, and soft money institutes are organizations whose budgets come from the overhead they charge to the grant funding agencies.

The primary offering of these soft money institutes is grant management. They allow anybody affiliated with them to be PI on grants, including post-docs. Furthermore, many of them work with off-site affiliates, so that if you affiliate with them, you may work from anywhere in the U.S. (and in some cases, overseas), offering a potential solution to the common "two-body problem" of trying to find a job in the same city as your spouse/partner. You can work for them full-time, or part-time while maintaining a primary affiliation with another institution (e.g. a university). Fulltime positions typically include benefits such as medical insurance, retirement accounts (with TIAA-CREF!), vacation time, and sick leave. People working on-site at one of these institutes also get office space, library access, and a collegial atmosphere with other soft money astronomers only a step away to discuss research, life, and how to optimize your

next grant proposal. Salary levels are competitive with other academic institutions. In fact, some institutes allow you to set your own salary as long as you can bring in sufficient grant money to cover it. The overhead rates charged to grants are very competitive (of order 30%-50%), and typically lower than university environments.

These kinds of jobs offer great amounts of flexibility, so what is the downside? Typically, the uncertainty of getting and maintaining grant support. The panelists agreed that these types of full-time positions were better suited for established researchers with a strong publication record and history of receiving grants. Early career astronomers whose names are not as well known might have more difficulty getting grants with soft-money institute affiliations, but the established researchers on the panel said that they felt no discrimination from grant review panels because of their non-traditional affiliation. "It's a survival of the fittest" system, they said, regardless of affiliation. Heidi Hammel, from SSI, noted that their success rate at SSI for grant proposals was about one in three, better than the average of one in five for most NSF proposals. It's also important to always know your backup plan if a grant should fall through. "Creativity is key," noted Barbara Whitney, also of SSI. Several panelists who have worked off-site described difficulties in adjusting to a home-office lifestyle, not having colleagues close at hand to bounce ideas off of, or just to discuss the day's events. They stressed the need to keep in touch with collaborators and local institutions, if possible.

Anyone interested in going the soft-money route is encouraged to contact these institutes. If there is a grant you are planning on applying for, proposal lead time is one to two weeks for current affiliates, and about a month for new affiliates. SSI, PSI, and NWRA all have both on-site and off-site affiliates. Eureka Scientific is purely off-site, and has a higher fraction of part-time associates. PSI focuses on planetary science research and NWRA focuses on solar and atmospheric physics, while both SSI and Eureka have affiliates covering a wider range of astrophysical disciplines.

# Committee on the Status of Women in Astronomy

Geoffrey Clayton (CSWA Chair, Louisiana State University, gclayton@fenway.phys.lsu.edu)

#### The CSWA Online

The CSWA has been working to increase our presence online. 1. Find our new and improved web page at www.aas.org/cswa 2. Subscribe to our weekly email newsletter. To subscribe to AASWOMEN go to http://lists.aas.org/cgi-bin/mailman/ listinfo/aaswlist and fill out the form. To submit items for inclusion in the AASWOMEN newsletter, send email to aaswomen@aas.org. Access to past issues of AASWOMEN is available on our web page at http://www.aas.org/cswa/ AASWOMEN.html. 3. Read our blog. We have inaugurated a Women in Astronomy blog, and we invite you to read and comment on it. You can find it at http://womeninastronomy.blogspot. com/.

4. Become a fan of the CSWA. We now have a page on Facebook that includes all of the entries on the Women in Astronomy blog and the AASWOMEN newsletter. You can find our page at, http://www.facebook.com/pages/Committee-on-the-Status-of-Women-in-Astronomy/43977374494

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

James Manning, Executive Director

### Making Friends in 2009

Louis, I think this is the beginning of a beautiful friendship. Rick Blaine, "Casablanca"

The International Year of Astronomy (IYA) is about many things. One of the things it's about is making new friends. For the universe, for astronomy, for science and science education—and for ourselves, to build new coalitions and partners to carry forward our IYA goals during this year and for the future.

From its beginning 120 years ago, when professional and amateur astronomers and photographers decided to form an organization for rubbing elbows on things that mattered to them, the Astronomical Society of the Pacific (ASP) has been about fostering friendships among astronomy and related constituencies. This year, we have wonderful opportunities to do this, not least among them as a partner on Interstellar Studios' 400 Years of the Telescope project, which is producing a PBS film special of the same name premiering on 10 April (as of this writing—check your local listings), a related planetarium show (*Two Small Pieces of Glass*) for wide distribution, a web site with educational resources, and other useful things. The film was presented as part of the U.S. IYA opening ceremonies at the AAS meeting in Long Beach; you can learn more about the entire project by linking to http://www.400years.org/.

The ASP role in the project is to help populate the web site with good things, and to engage in its tendencies in friendmaking. This includes providing the Night Sky Network (NSN) of amateur astronomy clubs (which ASP manages for NASA/JPL) with a new toolkit called "Glass and Mirrors "that includes an optics demonstration to help everyone understand how telescopes work, and other useful items. These materials will help amateur astronomers to make friends with their public as they work to introduce as many people as possible to the glories of the sky.

Additionally, we will be working to connect NSN clubs with the PBS stations and local planetariums and museums in eight target markets to engage in collaborative astronomy education efforts and events surrounding the film and planetarium show-and to encourage such organizations in about 30 other markets to do the same. The effort is designed to test where people enter into the stream of educational opportunities in this sort of effort and how they may be drawn from one opportunity to another and in what sequences-to better understand how educational programs can be crafted to encourage a progression of free-choice learning. A nice side benefit is to forge relationships between public institutions and organizations, which may find it useful to work together on future projects. With luck, this effort may spawn the beginnings of many beautiful friendships that will ultimately serve the cause of public science education.

What will you be doing to make new friends this year, and introduce them to the sky? It's what the year is all about, and you can get lots of good ideas by checking out the IYA portion of the ASP web site (http://www.astrosociety.org/iya/index. html), the 400 Years web site given above, the U.S. web site (http://www.astronomy2009.us), and the international web site (http://www.astronomy2009.org). You will find more opportunities than you can shake a telescope at.

So be sure to make a friend in 2009, and show them the cosmos. If we can get everyone to look up and to really see, who knows what good things may result?

# **Chambliss Astronomy Achievement Student Awards**

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

The AAS thanks all the students who participated in the 213th 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.

#### Undergraduate Medal

Calen B. Henderson (Vanderbilt University) Timothy Minella (Hamilton College) Lauren M. Weiss (Harvard University) Therese Jones (Penn State Univ.) Erin Macdonald (University of Colorado at Boulder)

#### Graduate Medal

Shanil N. Virani (Yale Univ.) Erin L. Ryan (Univ. of Minnesota) Tabitha C. Bush (Brigham Young Univ.) Hwihyun Kim (Arizona State University) Chun Ly (UC, Los Angeles)

#### Honorable Mention, Undergraduate

Andrew Bradshaw (Texas A&M University) Marshall Kennedy (University of Victoria) Nicole Cabrera (Georgia Institute of Technology) Kyle Cook (Western Kentucky University) Katherine Jameson (Boston University)

#### Honorable Mention, Graduate

Ami Choi (University of California, Davis) Jeremy Murphy (University of Texas, Austin) Sumin Tang (Harvard-Smithsonian Center for Astrophysics)

# **Division News**

#### High Energy Astrophysics Division (HEAD)

Mitch Begelman, Chair Chryssa Kouveliotou, Vice-Chair Ann Hornschemeier, Secretary-Treasurer (headsec@aas.org)

Detailed planning for the HEAD 2010 meeting, which will be held on the big island of Hawaii from 1-4 March 2010, is now under way (http://www.confcon.com/head2010/). Now is the time to talk to collaborators about special session ideas (proposals will be due 1 October 2009 and must include a HEAD member as proposer/session organizer). We will have great facilities for a scientific discussion and of course you will be in Hawaii! The abstract deadline for general contributions is anticipated to be 1 December 2009 (tentative).

HEAD was happy to participate once again in the January AAS Meeting in Long Beach, CA. The HEAD sessions were quite successful, including the Rossi Prize Lecture by Allen, Henry, Markevitch & Vikhlinin on cosmology with clusters. HEAD I (supermassive black holes) had more than 150 attendees and HEAD II (TeV gamma ray astronomy) had more than 50 attendees despite being held on the final day of the conference. The HEAD Executive Committee is already looking forward to the 2010 Washington DC meeting for another round of sessions on high energy astrophysics.

The HEAD executive committee announced in Long Beach that the 2009 Rossi prize winners are Charles Bailyn (Yale),

Jeff McClintock (CfA) and Ron Remillard (MIT) for their measurement of the masses of Galactic black holes. We congratulate them and look forward to their lecture at the Washington, D.C. AAS meeting in January 2010. The HEAD election results were announced, and the new HEAD executive committee members who are starting two-year terms (2009-2011) are Julia Lee (Harvard), Scott Ransom (NRAO) and Paul Ray (NRL). The full minutes of the HEAD Executive Committee meeting are available on the AAS HEAD website: http://www.aas.org/head/headnews/longbeach2009\_exec.html

We would like to remind all AAS members that the first HEAD Dissertation Prize will be awarded at the March 2010 HEAD meeting in Hawaii. Anyone who has received their PhD in high-energy astrophysics since 1 March 2007 will be eligible. The degree must be conferred by the time of application: the due date is 15 October 2009 to the HEAD Secretary-Treasurer (Ann Hornschemeier, headsec@ xraydeep.org). The award does require a nominator, please see details at http://www.aas.org/head/dissertation\_prize/ dissertation.prize.html).

# 2009 Prize Winners



L-R: Joshua Bloom, Mary Kay Hemenway, Peter Serlemitsos, Alicia M. Soderberg, Father George Coyne

### George W. Preston

Carnegie Observatories

The 2009 Henry Norris Russell Lectureship is awarded to George W. Preston for a lifetime of research that has transformed our understanding of RR Lyrae variables, stellar magnetic fields and stellar chromospheres, and led to a comprehensive view of the nature, chemistry, kinematics, and metallicity and age distribution in the Galactic stellar halo.

#### Joshua Bloom

University of California, Berkeley

The 2009 Newton Lacy Pierce Prize is awarded to Joshua Bloom in recognition of his work to explore and understand the nature of gamma-ray burst sources, both as a successful observer of these enigmatic and highly transient phenomena, and through his work to synthesize these observations into a coherent model of the mechanisms and astrophysical sites of gamma-ray burst formation.

#### Scott Gaudi

The Ohio State University

The 2009 Helen B. Warner Prize is awarded to Scott Gaudi for significant and broad theoretical contributions to the field of exoplanet research, particularly in the area of micro-lensing detection and characterization of planetary systems, as well as for planets detected via transit and traditional radial velocity techniques.

#### Mary Kay Hemenway

University of Texas

The 2009 AAS Education Prize is awarded to Mary Kay Hemenway for her leadership and dedication to astronomy education and improvement of K-20 science education at the state and national level throughout her career.

For her tireless contributions to developing a new generation of astronomy educators at universities, through NASA programs, and in informal settings. For her significant service to the community as Education Officer of the American Astronomical Society from 1991 – 1997, and especially as Secretary to the Board of the Astronomical Society of the Pacific since 1999.

For her unique contributions to K-14 teacher training in astronomy at the McDonald Observatory.

#### Peter Serlemitsos

NASA-GSFC

The 2009 Joseph Weber Award is presented to Peter Serlemitsos of NASA Goddard Space Flight Center for his innovative contributions to X-ray detector and telescope designs that have enabled decades of scientific advances in high energy astrophysics.

His initial contribution was the development of multi-anode, multi-layer xenon proportional counters, which became workhorses for non-dispersive observations during the 1970s. They made a "major advance in energy resolution" and the "impressively low background detectors were a primary factor in the success of that (HEAO-I) mission." This detector design was also used on Ariel-V, OSO-8, and Ginga missions. Refinements to the detectors led to temporal X-ray science experiments. These advances culminated in the Proportional Counter Array on the Rossi X-ray Timing Explorer (RXTE). The high sensitivity, high throughput, low background and sub-millisecond timing demonstrated by RXTE has opened new scientific vistas essential to astrophysics.

#### Alicia M. Soderberg Harvard CfA

The 2009 Annie Jump Cannon Award is given to Alicia M. Soderberg for her exploration of the physics of gamma ray bursts and supernovae and the connections between these two phenomena. Her ability to marshal observational resources spanning the electro-magnetic spectrum and to integrate empirical results into a theoretical framework have produced striking results and promise much more for the future.



L-R: Lennox L. Cowie, Steve Mandel

#### **Father George V. Coyne** Specola Vaticana

The 2009 George Van Biesbroeck Prize is awarded to George V. Coyne, S.J. in recognition of the diversity and scientific richness he has brought to the astronomical community through his visionary leadership of the Vatican Observatory Summer School (VOSS) and its long-term mentoring program, and for the unique role he has played at the juncture of science and religion. The VOSS has built a distinctive community for career support, international collaborations, and development of astronomy across the globe. Approximately 85% of VOSS attendees are still active in research or teaching in astronomy and astrophysics, and many are now prominent members of our community. Father Coyne also has significantly advanced the Vatican Observatory's goal of becoming a modern research institution, which carries a notable impact both in scientific and religious/philosophical circles. Father Coyne is an active spokesperson for issues regarding the many interactions between science and religion, particularly his Catholic faith. In this respect, he has served both the scientific community and the world's religious wisdom traditions in our mutual pursuit of truth.

Lennox L. Cowie University of Hawaii Honolulu

The 2009 Dannie Heineman Prize for Astrophysics is awarded to Lennox L. Cowie for his innovative observations and studies of the distant universe, which have advanced significantly our understanding of the formation and evolution of galaxies.

Steve Mandel

Hidden Valley Observatory

The AAS awards the 2008 Chambliss Amateur Achievement Medal to Steve Mandel, Hidden Valley Observatory, Soquel, California, for his many contributions to wide-field imaging. Steve was a collaborator on the Mandel-Wilson Unexplored Nebulae Project, searching for extended far-red optical emission from extremely low surface brightness interstellar clouds in the Milky Way. His deep images using a wide-field refractor and CCD camera showed the unique value of such imaging systems. These images were the basis for several undergraduate theses and resulted in published scientific papers, including Witt, Mandel, et al. 2008, *Ap.J.*, 679, 497. He extended his work using larger astrographs, resulting in a new, deeper, and more detailed study of high-latitude galactic gas clouds, many of them unknown and unexplored before his efforts.

Several of Mandel's images have been published on the NASA Astronomy Picture of the Day website, and many more are showcased in his book *Light in the Sky: Photographs of the Universe* (Blurb, 2006). Mandel founded the annual Advanced Imaging Conference (AIC) in San Jose, which brings together the most dedicated amateurs and manufacturers of the highest-quality equipment and software, with the clear goal of showing that amateurs can make significant scientific contributions with their astronomical images. He also created the Hubble Award, which is presented annually at the AIC to an amateur or professional who has made significant and sustained contributions to the practice and promotion of scientific astrophotography.

Mandel has also been involved in education and public outreach, working with the staff of the Kitt Peak National Observatory Visitor Center to make their Nightly Observer Program and Advanced Observer Program successful. He has made substantial donations to these programs and has arranged for discounted prices and loans of equipment to participants.

#### Linda S. Sparke

Univ. of Wisconsin, Madison

#### John S. Gallagher

Univ. of Wisconsin, Madison

The AAS Chambliss Writing Award is given to Drs. Linda S. Sparke and John S. Gallagher, for their textbook *Galaxies in the Universe: An Introduction*.

"Galaxies in the Universe" has been widely adopted in many upper division undergraduate and graduate courses. It serves as an excellent foundation and introduction for new researchers, providing background for, and synthesis of, the many diverse topics necessary to understand galaxies: stellar structure and evolution, the interstellar medium, radiative transfer, gravitational dynamics and gas dynamics. It explains the important theoretical ideas, and surveys the relevant observations, clearly and concisely. It gives the student the tools needed to attack contemporary research problems. The writing is clear, relaxed and easy to read. The recent revision made significant updates which ensure that the book remains current.

# Community Service Activities at Ritter Observatory, Toledo OH

Nancy D. Morrison, Director, Ritter Observatory

With support from NSF-PREST, Ritter Observatory has made its spectroscopic observational facilities available to the astronomical community through the programs described below, which will be offered to the community at least through April 2010. Ritter is committed to devoting up to 25% of its usable observing time to service observations and to its visiting student program. Requests for both are invited.

#### Ritter Observatory's community access programs

1. A public spectroscopic data archive is on line at:

http://ritter.astro.utoledo.edu/prest

#### 2. Service observing

Observations with either of the spectrographs described below can be scheduled on short notice by a simple email to the director, Nancy Morrison (NMorris@UTNet.UToledo. Edu). Requests for single observations at specific times (e.g., for support of observations made at other wavelengths) or for long-term monitoring, or for other time frames, are welcome.

#### 3. Visiting student program

Undergraduate and graduate students are invited to visit Ritter for training for one to two weeks. One-day visits by classes are also invited. Training can be designed with the goals of: preparing for a spectroscopic observing run at a larger telescope; obtaining data (possibly to be combined with Ritter archival data) for a project or thesis; or preparing for graduate school or for employment in astronomy. Funding for students' living accommodations during their visit will be available through August, 2009.

Students will be trained in telescope operation and data acquisition on clear nights and in spectroscopic data reduction and analysis with IRAF on cloudy nights. The precise subject matter can be tailored to each student's needs.

To apply, students are asked to provide, either on paper or electronically:

- An essay outlining their goals for the training
- A letter of support from a faculty advisor or mentor
- A university transcript, mainly for advising purposes

#### Paper:

Nancy D. Morrison Director, Ritter Observatory Mail Stop 113 The University of Toledo 2801 W. Bancroft Street Toledo OH 43606-3390 Email: NMorris@UTNet.UToledo.Edu For more information, please contact Nancy Morrison or Karen Borkman (Karen.Bjorkman@utoledo.edu) or see: http://ritter.astro.utoledo.edu/prest

#### Ritter Observatory instrumentation

- 1.1-m Cassegrain reflecting telescope with partially automated control system

- Low-Dispersion (single grating) spectrograph
  - -R = 6,000 or R = 3,000
  - 1300 x 400 spectroscopic CCD with thermoelectric cooling to -900 C
  - Spectral coverage 800 Å at R = 6,000
  - Limiting magnitude for SNR = 100: about 9 for red objects at R = 6,000
- Echelle spectrograph
  - Usually R = 26,000 (depends on slit width)
  - 4096 x 4096 CCD with CryoTiger cooling to -103.50 C, manufactured by Spectral Instruments (Tucson, AZ)
  - and purchased in 2006 with support from NSF-PREST.
  - This CCD yields not only a much larger format but also much better positional stability than our previous CCD.
  - Limiting magnitude for SNR = 100 in 1 hour: about 6 for red objects

- Fiber optic couplers enable choice of spectrographs at any time.

Observations are obtained on almost all clear nights, about 120 nights per year.

For more information, please see: http://ritter.astro.utoledo. edu/prest

# Member Spotlight

In each issue, we want to feature one member, their research or other work, a bit of their history and their picture. We will accept suggestions for this feature, but no self-nominations. If you know of a fellow member who does interesting research, came to our field through interesting circumstances or is just a fantastic person, consider submitting their story to us for possible publication (500 word limit). We will only publish stories approved by members willing to be featured. Email your suggestion to Crystal Tinch, crystal@aas.org.

### Announcements

#### Commemoration of Edwin. E. Salpeter

Edwin E. Salpeter died on 26 November 2008. Ed was an exceptional scientist who energized many fields of astrophysics with his insight, intellect and personal touch. We are organizing a commemoration of Ed's life to be held on 14 March 2009 at Cornell University. Details may be found at the web site: http://astro.cornell.edu/events/ salpetercommemoration/index.html

#### **NSO Observing Proposal Deadline**

The current deadline for submitting observing proposals to the National Solar Observatory is 15 May 2009 for the third quarter of 2009. 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. 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.

#### Call for NRAO Observing Proposals

Astronomers are invited to submit Regular and Large proposals for observing time on the NRAO Green Bank Telescope (GBT), Very Large Array (VLA), and Very Long Baseline Array (VLBA). A Large proposal is defined as requiring at least 200 hours of observing time on one or more of the NRAO instruments.

Instrument	Deadline	Observing Period Notes
GBT	2009 Jun 1	2009 Oct - 2010 Jan
	2009 Oct 1	2010 Feb - 2010 May
VLA	2009 Jun 1	2009 Oct - 2010 Jan *,v
	2009 Oct 1	2010 Feb - 2010 May *,e
VLBA	2009 Jun 1	2009 Oct - 2010 Jan
	2009 Oct 1	2010 Feb - 2010 May

Notes: (\*) The D configuration with a maximum baseline of 1 km.

The transition from the VLA correlator to the EVLA correlator is currently planned to take place in 2010 Jan. At that time the VLA will remain in the D configuration for a further trimester and the order of the configuration cycle will change to D->C->B->A. Shared-risk observing with the new WIDAR correlator will begin with the EVLA in the D configuration. Capabilities of the new correlator will be announced in NRAO Newsletters and via the "News for Proposers" available at www.vla.nrao.edu/astro/ prior to the 1 October 2009 deadline.

Users of NRAO instruments from most U.S. institutions may request travel support for observing and data reduction trips, as well as page charge support. In addition, a program to support research by students at U.S. universities covers student stipends, computer hardware purchases, and student travel to meetings to present observing results. Applications to this program are tied to observing proposals. Awards of up to \$35,000 are possible. For details, see wiki.gb.nrao.edu/ bin/view/Observing/NRAOStudentSupportProgram

The NRAO and the European VLBI Network jointly handle proposals for observing time on the Global VLBI Network at centimeter wavelengths; the deadline is 1 June 2009 for the session in Oct/Nov 2009. Also, the NRAO and a set of European observatories jointly handle proposals for VLBI observing time at a wavelength of 3mm; the deadline is 1 October 2009 for the session in May 2010. The NRAO also handles proposals for the VLBI High Sensitivity Array at the same deadlines as for the VLBA; this Array includes the VLBA, VLA, GBT, and Arecibo in the U.S., plus Effelsberg in Germany.

A review has begun of how the NRAO carries out proposal submission, science review, and the time assignment process. This may result in some changes but the implementation of any recommendations is expected no earlier than the 1 June 2009 deadline. In the meantime, information on NRAO instruments, proposal submission routes, and user support is available via the NRAO website at www.nrao.edu

#### World Cultural Council

The World Cultural Council acknowledges individuals or institutions that have made outstanding achievements in science, by granting the Albert Einstein World Award of Science to first class figures whose wok has had a significantly positive impact on cultural legacy of mankind.

To put forward a proposal for this award, the nomination must be duly supported bu the curriculum of the candidate whose achievements in his/her respective field have clearly made a salient contribution to the well-being of mankind.

Nominations must be submitted in English in PDF Adobe by 10 April 2009: www.consejoculturalmundial.org/ nominations.

<sup>(</sup>v) VLA correlator.

<sup>(</sup>e) EVLA correlator.

#### Washington News continued from back page

In the climate of the cold war, Kennedy said, "Finally, to those nations who would make themselves our adversary, we offer not a pledge but a request: that both sides begin anew the quest for peace, before the dark powers of destruction unleashed by science engulf all humanity in planned or accidental selfdestruction." He later said, "Let both sides seek to invoke the wonders of science instead of its terrors. Together let us explore the stars, conquer the deserts, eradicate disease, tap the ocean depths, and encourage the arts and commerce."

#### **Decadal Updates**

Astro2010, the Astronomy and Astrophysics decadal survey, continues to solicit input from the community. The committee is encouraging local institutions to hold town hall meetings and invite colleagues and decadal survey members to participate. Multiple institutions in a region are encouraged to collaborate on holding such meetings.

The decadal survey had a successful launch at the 213th Meeting of the AAS in Long Beach. Decadal chair Roger Blandford addressed the society with an update on the status of the survey, followed by a town hall session in which he and other members of the survey took questions from the audience. Audio of both of these sessions is available on the AAS Public Policy blog and podcast feed. (blog.aas.org)

#### The World of Science Policy

I spoke with a handful of graduate students and others at the Long Beach meeting about the John Bahcall Public Policy Fellow. I am entering my second and final year as the fellow. I anticipate the fellowship will be advertised in the *Job Register* in the fall to select the next fellow. Other opportunities exist for those interested in science policy. Among these are the The Christine Mirzayan Fellowship, run by the National Academies, the wide range of congressional and executive branch fellowships sponsored by the AAAS (American Association for the Advancement of Science), and fellowships sponsored by the American Institute of Physics. I have posted a list and a summary of these positions at the AAS web site under Public Policy. If you are interested in any of these (especially the Bahcall Fellowship) and have questions about them, please feel free to contact me at huerta@aas.org.

# Page Numbers in AAS Journals

Chris Biemesderfer, Director of Publishing

The pagination in volume 137 of *The Astronomical Journal* is unusual. The first issue contains articles whose page numbers run from 1 through 553, while the second issue runs from page 2949 through page 3454. There are no pages with folio numbers in the range 554-2948. However, no-one is missing 2400 pages of journal content: those numbers are simply omitted. While this may be alarming to some initially, it is actually not a serious scholarly concern.

The appearance of numbers on printed pages is a relatively recent invention in the course of human writing apparatuses, having been devised about 500 years ago. Page numbers are sometimes referred to as "folio" numbers, because the individual sheets of parchment that were bound into codices were originally called "leaves." Early codices and books did not have folio numbers. Even Gutenberg's famous bibles did not have folio numbers. Folio numbers did not start appearing until roughly 70 years – three generations! – after Gutenberg's first bibles were printed in the mid-fifteenth century.

Folio numbers serve a number of purposes, such as facilitating cross-referencing and ordering the pages in a collection. Both of these particular objectives are accomplished as long as the page numbers in a volume are in a monotonically increasing sequence. Page numbers do not have to increment by one, however. We're just used to it—we call it "continuous pagination"—in modern books.

Sometimes, manufacturing controls break down. That happened as the articles for the second issue of AJ v137 were

being prepared: the software that manages pagination went temporarily insane, and the first article in that issue was given a somewhat startling initial page number. Since the sequence remained monotonically increasing, however, it is still possible to cross-reference all the articles unambiguously, so no harm is done from a scholarly point of view. Consequently, we decided to leave the pagination intact. (If those of you who enjoy number theory want to call it "discontinuous" pagination, I am OK with that.)

Why not "fix" the pagination? Because in these modern times, even though we still paginate on an issue-by-issue basis, we actually publish an article at a time. The unusual page numbers were not noticed until 15 articles had already been published, their bibliographic information having been syndicated to our many partners; it was the folks at ADS who brought this to our attention. If we were to change page numbers after we publish articles, we would have to notify all our partners and effectively "republish" these articles. In the process, we would syndicate nearly identical article metadata (duplicative except for the page number). The risk of duplicate bibliographic records in secondary databases outweighs, in our estimation, the human preference for continuous pagination.

Those of you who are now wondering "If we are publishing an article at a time, why should we continuously paginate at all? Why not just use unique article numbers?" are eligible to win my new I'm-Glad-You-Thought-of-that Award. The first three of you who (really) thought of it and who send me an email will get something really nice from me at the Pasadena meeting.

# Calendar

### AAS & AAS Division Meetings

DDA Meeting 2-5 May 2009, Virginia Beach, VA http://dda.harvard.edu/

### AAS 214 Meeting

7-11 June 2009 Contact: Kelli Gilmore (gilmore@aas.org) aas.org/meetings/aas214

SPD Meeting 14-18 June 2009, Boulder, CO spd.aas.org/navbar\_meetings.html

**DPS Meeting** 4-9 October 2009, Fajardo, Puerto Rico http://dps.aas.org/meetings/

#### **HEAD** Meeting

1-4 March 2010, Big Island, HI Contact: John Vallerga (info@eurekasci.com) www.confcon.com www.hiltonwaikoloavillage.com/

#### **Other Events**

2009 IAU Symposia, Special Sessions and Joint Discussions http://www.astronomy2009.com.br/

#### 8th Annual International Astrophysics Conference: Shock Waves in Space and Astrophysical Environments

1-7 May 2009, Big Island of Hawaii Contact: Xianzhi Ao (ay@cspar.uah.edu) http://icnsmeetings.com/ conference/8thannual/index.html

### The Search for Life in the Universe

4-7 May 2009, Baltimore, MD Contact: Marc Postman (postman@stsci.edu) www.stsci.edu/institute/conference/ spring2009

### 3rd ARENA Conference An Astronomical Observatory at Concordia (Dome C, Antarctica) for the next decade

11-15 May 2009, Rome, Italy Contact: Luigi Spinoglio (luigi.spinoglio@ifsi-roma.inaf.it) http://pollux.ifsi-roma.inaf.it/arena\_ conference/ CASCA 2009: Annual Meeting of the Canadian Astronomical Society 26-29 May 2009, Toronto, Canada Contact: Ray Jayawardhana (rayjay@astro.utoronto.ca) astro.utoronto.ca/casca09

### \*Stellar Pulsation, Challenges for Theory and Observation

31 May-5 June, Santa Fe, NM Contact: Joyce Guzik (joy@lanl.gov) http:///www.lanl.gov/conferences/ stellar\_pulsation

\*IAU Symposium No. 261 Relativity in Fundamental Astronomy 27 April – 1 May 2009, Virginia Beach, VA Contact: Sergei A. Klioner (sergei. klioner@tu-dresden.de) www.aas.org/divisions/meetings/iau/

### The Monster's Fiery Breath: Feedback in Galaxies, Groups, and Clusters

1-5 June 2009, Madison, WI Contact: Sebastian Heinz (feedback@astro.wisc.edu) www.astro.wisc.edu/feedback

\*Aspen Summer Cosmology Workshop: Testing General Relativity in the Cosmos 14 June-5 July 2009, Aspen, CO Contact: Bhuvnesh Jain (bjain@physics.upenn.edu) http://www.aspenphys. org/documents/program/ summerworkshops.html

Unveiling the Mass: Extracting and Interpreting Galaxy Masses, and a Celebration of Vera Rubin's Career 15-19 June 2009, Kingston, Ontario Contact: Stephane Courteau (courteau@astro.queensu.ca)

### \*Second Exeter Astronomy Conference

21-26 June 2009 Contact: John A. Blackwell (jblackwell@exeter.edu) http://www.exeter.edu/ Astronomy/4380\_4634.aspx \*The Many Faces of Centaurus A

28 June - 3 July 2009, Sydney, Australia Contact: Ilana Feain (Ilana.Feain@csiro.au) http://www.atnf.csiro.au/research/ cena/

\*Supernova Remnants and Pulsar Wind Nebulae in the Chandra Era 8-17 July 2009, Cambridge, MA Contact: Paul Green (snr09@cfa.harvard.edu) http://cxc.harvard.edu/cdo/snr09/

\* The Fifth NAIC-NRAO Single-Dish Summer School 12-18 July 2009, Arecibo Observatory, Arecibo, Puerto Rico Contact: Chris Salter (sdss5@naic.edu) http://www.naic.edu/~astro/sdss5/

#### Galaxy Wars: Stellar Populations and Star Formation in Interacting Galaxies

19-22 July 2009, Johnson City, TN Contact: Beverly Smith (smithbj@etsu.edu) etsu.edu/physics/wars/wars.html

### \*New Technologies for Probing the Diversity of Brown Dwarfs and Exoplanets

19-24 July 2009, Shanghai, China

http://www.shao.ac.cn/bdep\_ meeting/Regab.html

\*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 cadcwww.hia. nrc.ca/meetings.



American Astronomical Society 2000 Florida Avenue, NW, Suite 400 Washington, DC 20009-1231

Newsletter 144 March April 2009

Periodical Postage Paid Washington DC

# Washington News

#### Marcos Huerta, John Bahcall Public Policy Fellow, huerta@aas.org



Daily life in Washington is returning to normal, as the crowds, closures, and festivities associated with President Obama's inauguration slowly fade into memory. The National Mall was filled with an estimated two million people on a cold, sunny day. With the pageantry and celebrations of the inauguration over, the work of a new government is underway, with the economy and national security

issues front and center in the first few days of the new administration.

#### Science in the Stimulus Bill

The House of Representatives has released a draft version of the spending portion of a proposed \$850 billion economic stimulus bill. The initial proposal includes significant money for science. The National Science Foundation is set to receive \$3 billion, including \$2.5 billion for Research & Related Activities (increasing the size and amount of grants) and \$400 million for Major Research Equipment and Facilities Construction. The remaining \$100 million is designated for programs within Education and Human Resources.

NASA would receive a total of \$600 million in stimulus funding as well—\$400 million for science, "of which not less than \$250,000,000 shall be solely for accelerating the development of the tier 1 set of Earth science climate research missions recommended by the National Academies Decadal Survey." The remaining \$150 million presumably can be used throughout the Science Mission Directorate. The other \$200 million is allocated to aeronautics (\$150 million) and Cross Agency support (\$50 million), specifically for "restoration and mitigation of National Aeronautics and Space Administration owned infrastructure and facilities related to the consequences of hurricanes, floods, and other natural disasters occurring during 2008."

The Department of Energy Office of Science would receive \$2 billion, toward the improvement of DOE run national labs and other scientific research. \$400 million is for the so-called ARPA-E project, a new "Advanced Research Project Agency-Energy" that will fund "high-risk, high-payoff research" in the area of alternative energy sources, etc.

This is but the opening bid in a back and forth process on the economic stimulus bill; but the House's heavy emphasis on science—reportedly due to Speaker Nancy Pelosi—is most welcome.

#### Science in Inaugural Addresses

As I noted in detail on the AAS Public Policy Blog (blog.aas. org), Barack Obama is the first president since Richard Nixon to use the word science in his inaugural address. President Obama said that he would "restore science to its rightful place." While Nixon referred to "enormous strides in science," in his first inaugural, the most recent president to really discuss science was President Kennedy. He urged that the role of science must be a positive force rather than a means of our own destruction.