September October 2007 Issue 137

4

Letter from the President

5

Austin Meeting

6

Final Election Slate

7

Membership Dues Subscription Rates

7

2008 Renewals

8

Scenes from the Hawaii Meeting

13

IYA Update

Back page

Washington News

Special Insert

The Journals of the AAS





# President's Column

J. Craig Wheeler, aaspres@aas.org

The America COMPETES act is passed, the NSF is on a budget path to double in ten years, the Astronomy Division gets its fair share and we are embarked on a golden era in ground-based astronomy. Unfortunately, the real world is more complex than that. Several of us met with Wayne Van Citters and Eileen Friel of the NSF Astronomy Division for a day in August to discuss the great opportunities and daunting challenges facing the NSF. A number of points emerged that astronomers need to contemplate. Ten years is a long time, two or three Administrations, five Congresses. What Congress giveth, Congress can messeth up. There is this contretemps in Iraq. On a more local level, the Astronomy Division has done well in the last couple of budget cycles and gets great credit for having undergone the rigors of the Senior Review. To balance that, the focus of the national competitiveness initiative is on topics like nanotechnology. We can, and will, make the case for the role of astronomy there, but the task is difficult; that is not the central function of astronomy. Another practical factor is that a significant portion of new money tends to get "stove-piped," put into special initiatives, of which astronomy may get a share, but which are not equivalent to general revenues. An example is "centers." There is no doubt that astronomy benefits from the Center for Adaptive Optics at Santa Cruz, but that money in the centers program could never have bolstered the grants program or paid for the VLA. This makes the flow of new NSF funds from Congress to astronomers inefficient by some measure. On the other side, along with breath-taking opportunities, an avalanche of operation costs for major new instrumentation, ALMA, ATST, GSMT, and LST is headed our way. It is unlikely that even a doubling of the Astronomy Division budget over ten years will deflect that onrush. The trick will be to orchestrate a symphony of public, private, national, and international funding to meet these challenges and accomplish great things. Wayne and Eileen have circulated a letter to our community by AAS exploder outlining their plans to implement the recommendations of the Senior Review. They will be at the NSF Town Meeting in Austin to address these issues with us. Come to Austin and help us continue this important conversation.

As long as we are talking about money, let me bring up the issue of fund raising. Executive Officer Kevin Marvel and I are going to try to strengthen the development effort of the Society in a number of ways. Astronomers are, by and large, naturally penurious (they won't invite us back to Las Vegas!), but the Society has needs with which we hope that you will help. Council is engaged in a discussion of what our priorities should be, for instance, bolstering some of the prizes so there is more equality among them, or supporting policy or education initiatives. We are trying to make the process of giving easy and transparent on the website and elsewhere. Please consider giving just a little in addition to your dues to help the Society prosper and to better serve you and our community.

In these days of onrushing progress in our science, I commend to you the reading of the essay by Simon White entitled "Fundamentalist Physics: Why Dark Energy is Bad for Astronomy" (arXiv:0704.2291) and the rejoinder by Rocky Kolb "A Thousand Invisible Cords Binding Astronomy and High-Energy Physics" (arXiv:0708.1199). The direct issue here is the potential for a culture and financing clash between high-energy physics and classical astronomy, but another important sub-text is work in large collaborations versus the lone astronomer perched at prime focus (as if that happens anymore) or scratching with a pencil (brave theorists use pens). The focal

AAS Officers and Councilors
J. Craig Wheeler, President
John P. Huchra, President-Elect
Paul A. Vanden Bout, Vice-President
Robert W. O'Connell, Vice-President
Lee W. Hartmann, Vice-President
Hervey (Peter) Stockman, Treasurer
John A. Graham, Secretary
Michael F. A'Hearn, Publications Board Chair
Timothy F. Slater, Education Officer
Stephen P. Maran, Press Officer

Councilors

Megan Donahue Margaret M. Hanson Chryssa Kouveliotou Marc Postman James S. Ulvestad Gary J. Ferland Suzanne L. Hawley Felix J. Lockman Nicholas B. Suntzeff

**Executive Office Staff** Kevin B. Marvel, Executive Officer Tracy Beale, Membership Services Administrator Chris Biemesderfer, Journals Manager Wayne Bird, Education Assistant Laronda Boyce, Meetings & Exhibits Coordinator Amy Brauner, Office Administrator Lisa Brown, Financial Assistant Kelly E. Clark, Manager, Admin. & Finance Susana E. Deustua, Director of Education Scott Garvey, Administrative Assistant Kelli Gilmore, Director of Meeting Services Jennifer Grier, Temporary Education Specialist Scott Idem, Network & Systems Administrator Chris W. Irwin, Assistant Systems & Web Admin. Judith M. Johnson, Deputy Journals Manager Faye C. Peterson, Manager, Membership Services Crystal M. Tinch, Communications & Development

The AAS Newsletter (ISSN 8750-9350) is published in March, June, August, October, and December 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 \$125.00 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

Manuscript Submissions Using AASTeX

The AJ and ApJ accept manuscripts electronically that are prepared using the AASTeX manuscript package. Following are some important addresses for obtaining information about AASTeX and electronic submission.

AASTeX Homepage: aastex.aas.org User Support: aastex-help@aas.org Journal Homepages/Manuscript Submission: journals.aas.org

AAS Email Policy

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

For address changes, email address@aas.org

# Letters to the Editor

# Data Analysis Funding Needed to Keep US Competitive with International Partners

As the NSF makes large investments in the construction and operation of state-of-the-art, international facilities such as ALMA and future 30-meter class visual / NIR telescopes, it is imperative that funds to perform the research be provided to keep US users competitive with our international partners.

However, NSF funding and time-allocation on ground-based observing facilities are decoupled. Researchers must submit separate observing time requests and funding proposals to support data acquisition on one hand, and analysis and publication on the other. This is an inefficient use of resources as some researchers will win observing time but not the funds to support analysis; others will be awarded funds, but not observing time to get the data. This is especially likely in a highly over-subscribed environment in which many proposals are of high quality, but most can't be selected due to lack of funds.

In contrast, in Europe, Japan, and Canada, research activities such as travel, page charges, and computer resources are provided by the home institutions. The current decoupling of funding and observing time puts US scientists at a competitive disadvantage compared to those in the partner countries.

Linking data analysis funds to the development of new facilities was a key recommendation in the last decadal survey (the McKee-Taylor Report): 'To achieve the full scientific potential of a new facility, it is essential that, prior to construction, funds be identified for operation of the facility, for renewal of its instrumentation, and for grants for data analysis and the development of associated theory.'

NASA missions such as the Hubble, Chandra, and Spitzer Space Telescopes have shown that user grant programs maximize the return on capital investment by producing high quality science results, rapid publication, and incentives for new students to enter highly technical fields.

In international projects, US users are currently at a funding disadvantage compared to our foreign colleagues. It is imperative that researchers be provided with sufficient financial support and other resources to fully utilize the US share of the NSF investment in the construction and operation of large international facilities.

Sincerely,

John Bally bally@origins.colorado.edu

Sandy Faber faber@ucolick.org

Dave Wilner dwilner@cfa.harvard.edu

Hector Arce harce@amnh.org

Eric Feigelson edf@astro.psu.edu

Paul Harvey

Jonathan Williams jpw@ifa.hawaii.edu

Tyler Bourke tbourke@cfa.harvard.edu

pmh@astro.as.utexas.edu

Qizhou Zhang qzhang@cfa.harvard.edu

Richard Crutcher crutcher@uiuc.edu

Marc Krumholz krumholz@astro.princeton.edu

Neal Evans nje@bubba.as.utexas.edu Rolf Peter Kudritzki kud@ifa.hawaii.edu

# From the Executive Office

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

September marks the beginning of a new era for the AAS, our oldest journal, The Astronomical Journal, will begin publication at our new publisher, the Institute of Physics. To manage our journals during their transition, plan for their long term future and take them back to the cutting edge of technological development, the AAS has created a new Executive Office staff position. The new Journals Manager will have broad responsibility for our journals and be the lead person guiding the journals future technological development.

I am happy to announce that Chris Biemesderfer, who has had a long affiliation with the AAS in a variety of roles (he designed and wrote AASTeX) will be our new Journals Manager. Chris has hit the ground running and is working on a variety of projects, including planning for the publication of the Astronomy Education Review, which the AAS Council has agreed to publish and working with our editorial teams on transition issues. You will see Chris' positive impact on our journals over time. With the addition of Chris to our EO staff, Judy Johnson, our Publications Manager has been named to a new position, Deputy Journals Manager. In this role, she will still carry out most of her old duties, while freeing up some time to help Chris on a variety of projects and ultimately taking on managing editor duties for the AER. If you have any ideas or suggestions for our journals, be sure to send them in to us, either directly to Chris [Chris. Biemesderfer@aas.org]. Transition-specific issues should be emailed to journals.transition@aas.org.

In tandem with the roll out of the new web page for The Astronomical Journal, the AAS published a new home page with a look and feel that is connected with our journals. Given the vast amount of content on the pages, we are still making changes to some of the sub-pages, but the bulk of our content is now presented with a standardized design and functionality. The design was supplied to us by our new publisher. Our IT Manager, Scott Idem (with the help of many people in the Executive Office) migrated the content. I hope the new pages will allow you to access the information you want more quickly and easily. If you see things broken, let Scott know. If you want some added functionality, let me know. We will do our best to make the site more valuable for you in your daily research activities.

I want to also mention that this issue of the AAS Newsletter, marks the final appearance of a column by our first John Bahcall Public Policy Fellow, L. Jeremy Richardson. It also marks the beginning of the recruitment process for our next fellow. If you, or someone you know, are a recent Ph.D. or Ph.D. to be and are interested in spending a half-year working on public policy here in Washington, please look for the job ad in the *Job Register* for application details. The position can either be half time for a full year or full time for a half year.

We have had a few other staff transitions in the past year and I wanted to take this opportunity to update you on your Executive Office staff members. Beginning a new phase of effort in the Executive Office, Crystal Tinch, our Publications Specialist has been moved to a new position in the membership group and is now responsible for development and membership communications. Tracy Beale joins the membership group as the Membership Services Coordinator; and Faye Peterson, Membership Manager, continues to provide leadership for this important part of our office. We have a new Office Administrative Assistant, Scott Garvey, who you may speak to when you call into our office. Scott replaces Amy Brauner in this position and Amy is now working as a Meeting Planner, a new position in our meetings group. Laronda Boyce has also joined the meetings group as the Meetings & Exhibits Coordinator. Kelli Gillmore, Director of Meetings, is preparing for an exciting Austin meeting. Beginning in September, Susana Deustua, our Director of Education will begin a six-month research sabbatical at Fermi Labs, and Jennifer Grier, who manages EPO for the DPS will be filling in part time. Education Assistant Wayne Bird joined the education group late last year and has been coordinating the Shapley lectureship program and other education activities. Lisa Brown began as our new Financial Assistant, working with Kelly Clark, Manager of Finance and Administration; and finally, Chris Irwin has begun as our Systems and Web Assistant, filling a long vacant position. I am very happy with the new additions and extremely happy that the office is now fully staffed. Our ability to serve our members and our journals has been significantly increased with the creation of two new positions and the successful filling of our open positions.

As always, if you would like your Society to do something better or different, please send me an email. Only by hearing from our members can we serve you better!

point is research on Dark Energy and Dark Matter, topics that clearly affect both fields. My not-so-deep take on this is encapsulated in a phrase I have over-used for the last several years: "it's all one Universe" (and yes, I know about multi-verses). The debate reminds me of the computer wars; should we have the biggest, baddest iron on the planet, or really good work stations on our desks? Or telescopes. Should we just have a supremely outrageous aperature telescope, or a network of one-meter robotic telescopes?

The answer, I believe, is that we need the proper spectrum of resources and talent to use them. I have to admit I am a bit discomfited by the circus that supernova work has become once Type Ia came into the direct line of fire of cosmologists and physicists. On the other hand, I believe both in the value of large teams where appropriate, and, fiercely, the value of the individual struggling away with a problem. I'm a small cog in the SDSS II SN Search program. I'm very impressed with the talent on this team and the way it meshes individual effort to fill in the supernova "redshift desert." On the other hand, I spent a great deal of time this summer, much of it alone, pondering the Rorschach patterns of data arrayed on the spectropolarimetry Q/U plane. I don't think that sort of work gets done by a large team. In any case, I recommend that you read what Simon and Rocky have to say, think about it, and talk to your colleagues. We are arranging a debate between the two of them in Austin. There are issues that we must, collectively, address.

As advertised, I have appointed a Committee on New Communications, chaired by Council member Gary Ferland. The thoughts of the committee are developing on http://groups. google.com/group/aascommncomm. The committee will be well on its way to drafting a preliminary report by the time you read this, but this is a long-term issue. Please watch for developments and let us know what you think.

# Letter from the President

Dear AAS Members:

We depend on the American Astronomical Society to support our profession with a range of activities, some obvious, some more subtle. Our meetings and journals are our most prominent activities, but we also reward a wide range of endeavors with prizes and other forms of recognition, are active in education and public outreach, and influence funding agencies and government policies. We rarely seek financial help from our members beyond dues, but there are worthy projects that would benefit from the added support of each of us who values the AAS and its mission.

We hope that many of you, especially our senior colleagues, will be willing to make a special contribution to the Society during the 2008 renewal period. Of particular note is that many of our prizes are thinly funded. The John Bahcall Public Policy Fellowship and the George Van Biesbroeck programs were designated by Council as the special focus programs for 2008:

The John Bahcall Public Policy Fellowship is designed for an early-career astronomer to gain valuable, first-hand experience in the public policy arena. Responsibilities include organizing the annual Congressional Visits Day, direct lobbying visits, communication with AAS members, and analyzing the federal budget for astronomy. This is currently a six-month appointment. With your generous donation, AAS hopes to make this a one-year fellowship. Each dollar donated will be matched, up to a maxium amount, by Neta Bahcall, so your contribution can be twice as effective.

The **George Van Biesbroeck Award** is normally awarded every two years and honors a living individual for long-term extraordinary or unselfish service to astronomy, often beyond the requirements of his or her paid position. We seek to offer this award annually.

I hope that you will consider a regular program of giving, but please start with a contribution this year. We have made this easy with a link right on the main page of the AAS web site: **Donate to the AAS**. You can give a generic gift, or select the particular category you would like to support. The AAS is a 501(c)3 non-profit corporation and all donations are fully tax deductible. Additionally, your 2008 renewal invoice will contain the normal donation options, whether you renew using our new online system or through the traditional paper process.

Thank you for investing in the future of astronomy in North America.

Sincerely,

J. Craig Wheeler President

American Astronomical Society

Jay Wheeler

# **Austin Meeting**

Ya'll get ready for the upcoming January AAS meeting in Austin, Texas from 7-11 January 2008! The BBQ will be tasty, the Tex-Mex food spicy and the astronomy results spectacular! The AAS will meet with two of our Divisions, the High Energy Astrophysics Division (HEAD) and the Historical Astronomy Division (HAD).

Please note that the days for this meeting are shifted compared to other AAS meetings. The opening reception is on Monday, 7 January and scientific sessions begin Tuesday, 8 January.

The program is jam-packed with exciting lectures, special sessions, town hall meetings and evening events. The multi-cultural city of Austin offers a wide range of activities and attractions (including live music on 6<sup>th</sup> street, www.6street.com, located just blocks from the meeting hotels and convention center).

The preliminary meeting schedule is now online at the AAS homepage. Kicking off the pre-meeting workshops is AstroZone, an outreach effort to local educators and the general public on Saturday, 5 January. Education workshops fill up Sunday and Monday, while the meeting truly gets under way Monday night, 7 January, with the opening reception. The AAS Career Workshop takes place on Monday as well and provides excellent advice and insight for job seekers.

In addition to a wide range of contributed scientific sessions, invited speakers include: James Kasting (Penn State University), NASA Administrator Michael Griffin, S. Alan Stern (NASA-HQ), Mark Reid (CfA), Rocky Kolb (University of Chicago), Simon White (MPI), Shardha Jogee (University of Texas), Sandra Faber (UCSC), Thomas Brown (STScI), and Crystal Brogan (University of Hawaii).

The Austin meeting will feature the Henry Norris Russell Lecture by David Lambert of McDonald Observatory. Prize lectures will include: the AIP Gemant Award winner Andrew Fraknoi (Foothill College), Sara Seager (MIT) will present the AAS Education Prize talk, the Dannie Heineman Prize talk by Robert Kennicutt (Cambridge), the HEAD's Bruno Rossi Prize lecture by Neil Gehrels and the LeRoy E. Doggett Prize lecture of the HAD by David Devorkin (NASM).

The AAS meeting continues its important role as an opportunity to spotlight policy-related activities with town hall meetings for NASA, NRAO, and NSF, and a special decadal survey session.

Finally, the HEAD and HAD divisions will be meeting with the AAS. Special HEAD sessions include: Outbursts from Supermassive Black Holes and Present and Future Wide Field Submillimeter Surveys as well as the HEAD business meeting. HAD sessions include a session on the International Geophysical Year and the Dawn of Space-Based Astronomy and Astronomy at the Time of Jamestown and its role in the Exploration of America.

So if you like spicy food and exciting science, if you enjoy networking with your astronomy colleagues and hearing from key policy makers, if you enjoy live music and visiting the AAS exhibition hall, then the Austin AAS meeting 7-11 January 2008 is for you. Ya'll come on down to Austin, yew hear?

#### Member Deaths

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

Ralph Alpher Ronald Bracewell Harding "Gene" Smith Wayne Carlos Hendrickson John Mengel Tom Metcalf Michael J. Seaton

# Opting 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.

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

## Member Spotlight

In each issue, we will 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.

# Secretary's Corner

John Graham, aassec@aas.org

#### Committee Vacancies need to be Filled

Vacancies for several AAS committees will be filled by Council at its meeting in Austin, Texas in January 2008. Current committee members are listed under "Council/Committees" on the AAS homepage, www.aas.org. Committees that have vacancies, followed by the number of vacancies on each (in parenthesis) are:

Russell Lectureship Committee (2) Heineman Prize Committee (2) Warner and Pierce Prize Committee (3) Annie J. Cannon Prize Committee (1) AAS Education Prize Committee (2) Weber Award Committee (2) Henri Chrétien Grant Committee (2) Van Biesbroeck Prize Committee (3)

The Council takes advice from the Committee on Appointments for committee posts, AAS Members may themselves volunteer to serve on a committee, or suggest other Members for one of the vacancies. To be most useful to the Committee on Appointments, who may not know everyone, please include the date of Ph.D., as well as a few sentences conveying to the Committee the background and area of expertise of the named individual. Please assist us with this! We need to have both quality and breadth on our committees in order to help them make wise and fair recommendations to the Council.

Input must be received in the Office of the Secretary no later than 1 December 2007. Submit suggestions to John A. Graham, AAS Secretary, by email to aassec@aas.org or at the Dept. of Terrestrial Magnetism, Carnegie Institution of Washington, 5241 Broad Branch Rd., NW, Washington, DC 20015, Fax: (202) 478-8821, e-mail: aassec@aas.org.

### Message to Associate Members

Only (Full) AAS Members have the right to hold office or to chair committees of the Society. Many Associate members who are eligible to upgrade to Full Membership and whose expertise could benefit the Society, cannot serve. Associate members, please consider upgrading, and becoming more involved with Society activities! There is no increase in dues! (See a description of the different membership classes in the Bylaws, Article I.1, or on the membership application form.) If any of you have questions, please contact me at aassec@aas.org.

#### 2008 Membership Invoices

AAS members will be receiving their 2008 Membership Invoices soon after this issue of the AAS Newsletter. Since

virtually everyone eventually does pay their dues, please consider prompt payment! Prompt payment saves the Society staff considerable effort and time in reminders, which translates into saving money for all of us!

#### 2007 AAS Elections Final Slate

The following people have been nominated for office; most of the terms begin June 2008. Either an election ballot or details on voting electronically will be included in the December *AAS Newsletter*. The election will close 31 January 2008.

Vice-President Melissa McGrath Christine Jones

Treasurer Hervey Stockman

Councilors Jason Glenn

John W. Leibacher Nancy D. Morrison Patrick O. Slane C. Megan Urry Charles E. Woodward

USNC-IAU Frederic Chaffee

Sara R. Heap

Nominating Bruce W. Carney Committee George A. Doschek

James W. Liebert

Austin Meeting
Abstract deadline:
17 October 2007
9:00pm EST

#### New contact information:

ApJ Editorial Office
McMaster University
1280 Main Street West, GSB-118C
Hamilton, Ontario L8S 4K1
apj@mcmaster.ca

# 2008 Membership Dues & Subscription Rates

#### AAS Membership Rates

\$133 Full

\$133 Associate

\$45 Junior

\$ 65 **Emeritus** 

International Affiliate \$ 65

#### Division Dues (Tentative)

Division on Dynamical Astronomy (DDA) AAS Member: \$10, Division Affiliate: \$15

Division for Planetary Sciences (DPS) AAS Member: \$15, Division Affiliate: \$20

Division for Planetary Sciences (DPS) Student (for first two years) AAS Member: \$10, Division Affiliate: n/a

High Energy Astrophysics Division (HEAD) AAS Member: \$10, Division Affiliate: n/a

Historical Astronomy Division (HAD) AAS Member: \$8, Division Affiliate: \$10

Solar Physics Division (SPD)

AAS Member: \$8, Division Affiliate: \$10

#### 2008 Membership Subscriptions (Domestic)

For foreign shipping options, contact AAS Membership Department

AJ, ApJ, ApJ Supplement Electronic Package	\$50	
Astrophysical Journal (ApJ): Paper only	\$300	
ApJ: Paper and Electronic Package	\$325	
ApJ Supplement (ApJS): Paper only	\$60	
Astronomical Journal (AJ): Paper only	\$115	
AJ: Paper and Electronic Package	\$145	
Bulletin of the AAS (BAAS): Paper only	\$30	

Note: Members desiring paper and electronic access to more than one journal should subscribe to the "Electronic Package" with Paper option for one of the journals and the "Paper Only" option for the other(s).

# 2008 AAS Renewals

The 2008 renewal period is here! Be an early bird and renew online today. With almost fifty percent of the membership renewing online during the 2007 renewal period we considered it a success and look forward to additional member participation 0this year. Renewing early saves the AAS substantial cost and increases the funding available for our programs.

You will receive your 2008 dues invoice shortly. To renew at aas.org beginning 4 September 2007 follow these instructions:

Pay your dues online:

- Login to http://members.aas.org/
- Select "e-Billing Reminder"
- Your 2008 invoice and instructions will appear.

Additionally you will be able to support the Society's activities and prizes with an online contribution.

- Go to: http://members.aas.org/Contributions/
- Select a prize or activity that contribution by clicking on it.
- If you are a member, type your last name, first name, email address, and then click "Search."
- Your name should show up. Click "This is me."
- Type your name and credit card payment information.
- If you are not a member, just click "Skip Search" and type your name and credit card payment information.
- Click "Submit Credit Card Information."

The AAS Membership Department will be available to help with any problems at membership@aas.org or by calling us at 202-328-2010.

#### Honors, Prizes and Awards

To foster excellence, the Society recognizes outstanding contributions to astronomy. Through the Second Century Fund, the AAS is currently raising monies for existing prize endowments and for several new prizes:

Henry Norris Russell Lectureship - lifetime achievement Newton Lacy Pierce Prize in Astronomy - early career, observational

Helen B. Warner Prize for Astronomy - early career, observational or theoretical

Beatrice M. Tinsley Prize - especially innovative research Joseph Weber Award for Astronomical Instrumentation - instrumentation

Dannie Heineman Prize for Astrophysics - mid-career George Van Biesbroeck Prize - extraordinary service AAS Education Prize - contribution to education Annie J. Cannon Award in Astronomy - distinguished contribution by a woman

# Scenes of the Honolulu Meeting

The 210th meeting, held jointly with the Solar Physics Division, attracted 1235 attendees to the beautiful Hawaii Convention Center, in Honolulu. Highlights included the Hale, Harvey, and Cannon Prize lectures and a symposium on effects of astrophysical ionizing radiation on Earth. There were seven press conferences but the largest media attraction was a press tour of observatories on Mauna Kea, organized by outreach specialists led by Peter Michaud of Gemini Observatory, and addressed by (among others) the directors of Keck Observatory (Taft Armandroff) and the Canada-France-Hawaii Telescope (Christian Veillet). These pictures are AAS photographs by Richard Dreiser, ©2007 American Astronomical Society.







Left: Mukul Kundu (right, U. Maryland) presented the Hale Prize Lecture, on "Advances in Solar Radio Astronomy." James Klimchuk (Naval Research Lab.) reported new simulations that help to explain coronal heating. Middle: Junxian Wang (U. Science & Technology of China) estimated the central black hole masses for a sample of type I active galactic nuclei. Right: Observers who briefed the press on exoplanetary systems were (l-to-r) Edward Guinan (Villanova U.), who studied red-dwarf habitable zones, long-period-planet investigator Jason Wright (UC Berkeley) and John Asher Johnson (also UC Berkeley), who reported planets of A-subgiants. Alan Boss (far right, Carnegie Inst. of Washington) was Independent Commentator.







Left: Andreas Zezas (left, Harvard-Smithsonian CfA) described a new HST M81 mosaic that's in the background. Jorge Penarrubia (center, U. Victoria, Canada) described the remarkable little galaxy Andromeda XII. Brent Tully (U. Hawaii) expounded on the Local Void. Middle: Ann Hornschemeier (NASA Goddard) received the Annie Jump Cannon Award from President J. Craig Walker and spoke on "X-ray Emission from Galaxies Outside the Local Universe." Right: Haosheng Lin (U. Hawaii) gave a SPD Parker Lecture on the coronal magnetic field.







Left: Experts who discussed mergers, spins, and escapes of supermassive black holes were (l-to-r) Laura Brenneman, Christopher S. Reynolds, Tamara Bogdanovic (all, U. Maryland), Erin Bonning (Observatoire de Paris, Meudon) and Gregory Shields (U. Texas-Austin). Middle: Rolf-Peter Kudritzki, Director of the Institute for Astronomy (U. Hawaii), described quantitative spectroscopy of A- supergiants as a way to obtain accurate distances beyond the Local Group. Right: Robert Stein (left, Michigan State U.) simulated convection near the solar surface, while Mark Miesch (Natl. Ctr. for Atmospheric Research) presented what may be the highest-resolution simulations of global-scale solar convection yet achieved.

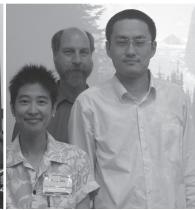






Left: Speakers at a solar physics briefing were (counterclockwise from lower left) Bart De Pontieu (Lockheed) and Stuart McIntosh (SouthWest Research Institute), who investigated chromospheric heating, Nat Gopalswamy (NASA Goddard), who contrasted radio-quiet vs. radio-loud coronal mass ejections, and Andrea Dupree (Harvard-Smithsonian CfA), Independent Commentator. Middle: Adrian Melott (U. Kansas) organized a symposium on astrophysical ionizing radiation and its impact on life on Earth. Right: Ralph Kraft (Harvard-Smithsonian Ctr. for Astrophysics) reported on Chandra observations of radio galaxy 3C 438.







Left: Stephen Pompea, Constance Walker, and Douglas Isbell (l-to-r, standing behind table; all, Natl. Optical Astronomy Obs.) explained the Globe at Night program and talked to reporters. Maggie McKee (New Scientist) is in right foreground, with notebook. Middle: Sally Oey (left, U. Michigan) and Carl Grillmair (center, Caltech) described galactic streams in the Milky Way. Subo Dong (Ohio State U.) announced the first space-based microlens parallax measurement. Right: SPD Vice Chair James Klimchuk (left) presented the Karen Harvey Prize to Jiong Qiu (Montana State U.). She lectured on magnetic reconnection and coronal mass ejections.







Left: Writers, podcasters, webposters, and press officers worked side-by-side in the Press Room. Middle: Cristina Rabello-Soares (Stanford U.), announced that solar monitoring devices are offered to classrooms worldwide in connection with the International Heliophysical Year (2007-2008). Right: Esther Hu (U. Hawaii), who works on distant galaxies, compared notes with James Liebert (center), an investigator of brown dwarfs, and Peter Stockman (Space Telescope Science Institute), who's helping to develop the James Webb Space Telescope.

More from Honolulu - Scenes of the 210th meeting, captured and kindly contributed to the AAS Newsletter by freelance photographer Katie Whitman. (Photographs © 2007 Katie Whitman.)







**Left:** AAS President J. Craig Wheeler, festooned with leis, presented the Joseph Weber award to Harvey Moseley (NASA Goddard) at the banquet. **Middle:** SPD Treasurer Joan Schmelz (right) congratulates Fana Mulu (Alabama A&M U.), one of nine students who received SPD awards for travel expenses to the meeting. **Right:** Wallace Sargent (right, Caltech) presided as John Tonry (left, U. Hawaii) answered questions after his invited talk on synoptic sky surveys.







Left: The Herschel Science Center booth was staffed by (l-to-r) Phil Appleton, Steve Lord, David Frayer, Babar Ali, Pat Morris and Bernhard Schulz. Middle: Michael Shao (Jet Propulsion Lab.) talked about searching for "Earth Clones." Right: Gordon Emslie (Oklahoma State U.) introduced a new method for imaging spectroscopy analysis of hard X-ray emission during solar flares.







Left: Mark Neyrinck (left, U. Hawaii) explained his work on cosmic variance to Erica Nelson (center) and Kristen Petrillo (both, Pomona College). Middle: Cara Rakowski (Naval Research Lab.) offered insights on the mechanism(s) that initiate coronal mass ejections, derived from ACE data. Right: Tabitha Bush (Brigham Young U.) obtained spectra of over 200 delta Scuti stars to catalogue their rotational velocities.

# Committee on Employment

Travis Metcalfe, travis@ucar.edu

#### The Evolution of the Astronomy Job Market

From 1982 to 1992, federal funding for astronomy research increased by more than 80%, fueled primarily by NASA funds related to the Hubble Space Telescope. Trailing this trend by several years, the annual production of new Ph.D. astronomers more than doubled. Meanwhile, the total number of jobs advertised in the AAS Job Register remained fairly constant. Responsible undergraduate programs began to lecture incoming astronomy majors about this imbalance in the job market, comparing the statistical odds of a longterm career in astronomy to the chances of becoming a professional athlete. The faculty in some graduate programs started to debate the idea of limiting the number of incoming

students ("birth control"), and they made efforts to track and publicize the longterm career progress of their Ph.D. recipients.

It was in this atmosphere that Thronson (1991, PASP, 103, 90) devised a model to describe the surplus production of new astronomers. He observed that overproduction appears to be built into the system,

making the mathematical formulation of the problem similar to that of industrial pollution - an unintended side effect of the process. We are now in a position to evaluate Thronson's predictions. He made 20 year projections of several models for the production of astronomers over time. His definition of the "astronomer surplus" was the annual ratio of new astronomy Ph.D. recipients tabulated by the American Institute of Physics (AIP) relative to new tenure-track faculty positions advertised in the AAS Job Register, which he calculated to be around 2.5 in 1991.

Regardless of the absolute level of overproduction, Thronson's most realistic models included the competing effects of increased research funding (which leads to growth in the surplus), and retirement (which briefly absorbs some of the surplus). These models predicted a gradual decline in the astronomer surplus over about 10 years, followed by continued overproduction: "A momentary abundance of jobs will be subsequently compensated for by training of new graduate students by a new cohort of young professors". Indeed, the anticipated impact of increased research funding on Ph.D. production was recently quantified in Figure 2 of a poster I presented at the summer meeting in Honolulu. Furthermore, the slowly evolving ratio of faculty positions to new Ph.D. recipients in Figure 4 of that poster showed exactly the

predicted behavior – peaking in 2001, and gradually declining in more recent years (you can view the poster at www.hao. ucar.edu/~travis/docs/AAS210poster.pdf).

Despite the accuracy of Thronson's predictions, a broader definition of sustainability may now be necessary, since the character of the astronomy job market appears to have shifted in the meantime. Astronomy research is increasingly moving towards automation and large collaborations where service positions are becoming more important. This cultural shift might be reflected in the surge of new research and support positions between 1997 and 2002, which may have absorbed some of the astronomer surplus generated during the more competitive conditions of the early 1990's. More recently,

While 87% of first year astronomy graduate students say they would like to end up in an academic position, the most recent data suggest that fewer than 50% actually will.

as the new cadre of young faculty have attempted to recruit a dwindling supply of graduate students, some may have turned to postdocs to maintain their research productivity. This could be responsible for the unprecedented expansion of postdoctoral jobs after 1999. But as startup funds are depleted and external research funding stays relatively constant, these

"holding pattern" positions could evaporate. The most recent data show the first signs of this possible slowdown.

The most important aspect of the ongoing cultural shift in the astronomy job market is the persistent gap between expectations and reality. When first year graduate students are surveyed by the AIP, fully 87% of those in astronomy departments say they would like to end up in an academic position, while only 8% express a desire to work in a national lab or research position. By contrast, the most recent data suggest that less than 50% will ultimately obtain academic positions - and probably fewer, since the turnover at universities appears to be episodic. Graduate programs in astronomy should prepare their students for this reality.

The AAS Committee on Employment is organizing a special session at the winter meeting in Austin, "What Does It Take to Land a Job Anyway?", currently scheduled for January 10. We would also like to invite members to submit abstracts for a related poster session about the astronomy job market and career issues, where the conversations can continue. Please check out our website (www.aas.org/career/) for additional resources and contact information for the committee members.

# News from NSF Division of Astronomical Sciences

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

### Reminder of Upcoming Program Deadlines

- 10 October 2007: NSF Astronomy and Astrophysics Postdoctoral Fellowships Program (AAPF). See NSF 07-572 (www.nsf.gov/pubs/2007/nsf07572/nsf07572. htm) for an updated program announcement. Stipend and benefit levels have increased and eligibility limitations have been changed to allow for interruptions in postdoctoral training.
- 1 November 2007: Advanced Technologies and Instrumentation (ATI)
- 15 November 2007: Astronomy & Astrophysics Research Grants (AAG) in all areas, including the Research at Undergraduate Institutions (RUI) program. See program announcement NSF 05-608 for AAG (www.nsf. gov/publications/pub\_summ.jsp?ods\_key=nsf05608) and NSF 00-144 for RUI proposals (www.nsf.gov/publications/pub\_summ.jsp?ods\_key=nsf00144).

#### **New Proposal Submission Guidelines**

We also remind proposers that NSF has published a new *Proposal and Award Policies and Procedures Guide* (PAPPG - NSF 07-140) which is effective for all proposals submitted. This new guide combines the former NSF *Grant Proposal Guide* (GPG) and the *Grant Policy Manual (GPM)* into a single publication that provides all the documents relating to NSF's proposal and award process. The new PAPPG supercedes all prior versions of the GPG and the GPM and can be found at: www.nsf.gov/pubsys/ods/getpub.cfm?gpg.

There are several important changes to the guidelines for the preparation of proposals, particularly pertaining to the requirements for formatting proposals. These include new limitations on allowable fonts, spacing, and type density. Prospective PI's are strongly encouraged to review the new guidelines and ensure that their proposals conform strictly to the requirements. Proposals that do not meet the submission requirements may be returned without review.

Proposers may use either the NSF FastLane system or the Government-wide portal for applying for Federal grants on line, Grants.gov. Proposals submitted via Grants.gov must be prepared and submitted in accordance with the NSF Grants. gov Application Guide, available on the NSF website at: www.nsf.gov/bfa/dias/policy/docs/grantsgovguide.pdf. The Grants.gov Application Guide contains information on:

- general instructions for submission via Grants.gov, including, the Grants.gov registration process and Grants.gov software requirements;
- NSF-specific instructions for submission via Grants. gov, including creation of PDF files;
- grant application package instructions;
- required SF 424 (R&R) forms and instructions; and
- NSF-specific forms and instructions.

Upon successful insertion of the Grants.gov submitted proposal in the NSF FastLane system, no further interaction with Grants.gov is required. All further interaction is conducted via the NSF FastLane system.

For the moment, proposals may still be submitted to NSF using FastLane.

## **Program Changes**

We will not be offering the Program for Research and Education with Small Telescopes (PREST) in FY 2008. Since FY 2004, the program has made three to five awards annually, and funding has provided both students and researchers in the community observing time on a variety of privately held telescopes. Telescope time will continue to be available from many PREST awardees as they complete improvements to their facilities. Over the next year, we will assess the program and its relation to other NSF support for the OIR system in the light of the recommendations to come from NOAO's ReSTAR committee on needed new capabilities and the science drivers for small and moderate aperture telescopes and the "System" needs that NOAO identifies as a result.

#### **Upcoming AST Committee of Visitors**

Every three years, the Division of Astronomical Sciences at NSF undergoes a review by an external Committee of Visitors (COV). The COV is charged by the Assistant Director for Mathematical and Physical Sciences (MPS) to evaluate the Division's performance over the past three years and report on, among other things, the quality of the results of our investments, the integrity of processes in the review and award of proposals, the balance of our program, our priorities and planning for the future. The Committee spends several days at NSF examining proposals, reviews, documentation of the review process, and the decisions made by program officers. Astronomy Division staff talk with the Committee about program balance, plans for the future, challenges that the Division faces and many other issues that we or the

Committee think are important. We benefit enormously from the discussions we have with the committee and hearing their ideas of how we might improve or serve the community better. The committee learns a great deal about how NSF and the division works, the process of decision-making, and the challenges we face. Our next COV will be held in early February 2008. So if you are approached to serve on the committee, we hope you will consider the invitation seriously and help us in this important oversight activity.

### Following the Senior Review

With the help of the AAS we recently distributed a Dear Colleague letter, updating the community on activities related to the implementation of the Senior Review (www.nsf.gov/div/index.jsp?div=AST). As that letter indicates, we are working closely with the managers of our facilities to encourage partnerships and creative paths to preserving the scientific capability of the affected facilities while reducing the NSF investment to help enable the exciting capabilities in front of us.

Hopefully by the time you are reading this Congress will have acted on our FY2008 appropriation. If the appropriation is close to the level requested, we are planning a number of activities to enhance the support for your research such as substantial increases to the Astronomy and Astrophysics Research Grants program, our instrumentation programs, and TSIP, and funding for technology development for GSMT, SKA, and advanced adaptive optics. The Dear Colleague letter provides more details.

There has been continuing concern within the community and here within AST about how best to support the users of the facilities we support, both new and existing. With the budget growth we are experiencing and the rebalancing of our program as a result of the Senior Review, we are now in a position to address this concern. In order to explore options with community input, we are forming a working group for research support of facility users.

Of course the future that we are addressing will span the activity and recommendations of the next Decade Survey. We note the activity in the community beginning the planning input to this essential activity. In particular, both AUI (under Dick McCray) and AURA (under Juri Toomre) have convened groups to begin to organize input into the Decade Survey. We encourage you to make your views known through these groups and at National Academy organized town halls and sessions, such as that at the upcoming AAS meeting.

Finally we invite you to attend our Town Meeting in Austin, where we will be able to update you on the latest information about all of the developments outlined above. We are planning a new format that will allow for much more interaction with you. Please plan to come and let us know what is on your mind.

# **Education News**

Susana Deustua, Director of Education

## **International Year of Astronomy 2009**

The US IYA 2009 Program Committee, Working Group Chairs and Development Committee recently met in Chicago, IL on 7-8 September. All the working groups have been busy and consequently much progress has been made. There will be a Town Hall on IYA in Austin, TX at the next AAS Meeting and we look forward to seeing you all there.

If you would like to be more involved (and there is still much to do!) please visit the website at www.astronomy2009.us and/or contact IYA committee members and working group chairs.

Program Committee Co-Chairs: Susana Deustua (deustua@aas.org), Doug Isbell (disbell@noao.edu) Development Committee Chair: Peter Stockman (stockman@stsci.edu)

### Working Group Chairs:

Rick Fienberg (rfienberg@skyandtelescope.com), Looking through a Telescope

Andrew Fraknoi (fraknoiandrew@fhda.edu), Classrooms and

Pamela Gay (pgay@siue.edu), New Media

E.C. Krupp (eckrupp@earthlink.net), Arts, Entertainment & Storvtelling

Dennis Lamenti (dlamenti@astro.indiana.edu), Storytelling & Astronomy and Culture

Peter Michaud (pmichaud@gemini.edu), Science Centers, Observatory Visitor Centers and Planetaria

Stephen Pompea (spompea@noao.edu), Telescope Kit and **Optics Challenges** 

Aaron Price (aaronp@aavso.org), Research Experiences for Students, Teachers and Citizen-Scientists

Connie Walker (cwalker@noao.edu), Dark Skies Are a Universal Resource

On 8-11 October 2007 in Athens, Greece, the Communicating Astronomy to the Public Conference will focus on IYA. Representatives from the national nodes of participating countries will share their plans for celebrating 2009 as well as how to coordinate with the IAU Cornerstone Projects. For more information go to the IAU website at www.astronomy2009.org.

#### Save the Date

The IYA Symposium in St. Louis, MO, supported by the ASP and the AAS, will be held concurrently with the AAS Meeting in June, 2008. Stay tuned for future announcements.

#### Reminder

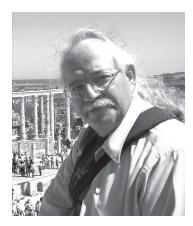
The Workshop for New Faculty in Physics and Astronomy will be held in College Park, MD at the American Center for Physics on 8-11 November 2007.

# **Division News**

## Division for Planetary Sciences (DPS)

## **Historical Astronomy Division**

Don Yeomans, Chair AAS-HAD LeRoy E. Doggett Prize Committee



## David Hyam DeVorkin Awarded 2008 Doggett Prize

The Historical Astronomy Division of the American Astronomical Society has awarded the sixth LeRoy E. Doggett Prize for Historical Astronomy to David DeVorkin. This prize was given for "his seminal work in illuminating the origins and development

of modern astrophysics and the origins of the space sciences during the twentieth century." Dr. DeVorkin's many research papers, books, and monographs have provided a detailed, scholarly and yet interesting history of twentieth century space science and astrophysics and the roles of the military, religion, government, the world wars and the power brokers in the development of these fields. His 2000 biography of Henry Norris Russell was critically acclaimed and resulted in two major exhibitions as well as several smaller ones. Based upon a wide variety of well documented sources, including archival

correspondence and oral histories, this landmark biography illuminated much of the history of astrophysics in the first half of the twentieth century. His popular historical articles have engaged the public and through his curatorial role at the Smithsonian Air and Space Museum he has made astronomy come alive for millions of interested museum visitors.

## Division on Dynamical Astronomy (DDA)

### The 2008 Meeting of the DDA

The 2008 Meeting of the Division on Dynamical Astronomy will be held 28 April through 1 May (Monday through Thursday) in Boulder, Colorado. Please remind your colleagues that astronomers, astrophysicists, and planetary scientists having an interest in dynamical research will find the annual DDA meeting to be a friendly, stimulating, and rewarding experience. The meeting will feature invited review talks on a range of topics in dynamical astrophysics, contributed oral papers (with no parallel sessions), and poster papers that are displayed throughout the entire meeting. There will also be an invited review, "what every dynamical astronomy should know", topic yet to be finalized, as well as a lecture for the public. Complete details, as they become fixed, can be found online at the DDA web site: http://dda.harvard.edu/.

# Dr. N. Phan-Bao Receives 2007 Chrétien Grant

The AAS administers a grant program to support longerterm international research visits under the Chrétien Grant program. Award requests up to \$20,000 are accepted. The chair of the 2007 Chrétien Grant committee was Dr. Maria Teresa-Ruiz of the Universidad de Chile.

Dr. N. Phan-Bao is the recipient of the Henri Chrétien International Research Grant for 2007. He proposed a search for ultra cool and brown dwarf stars at low Galactic latitude and an effort to measure magnetic fields in fully-convective stars. The first project will involve observing runs at the 2.3-m telescope at Siding Spring Observatory for spectroscopic observations of a pool of candidates mined from the DENIS and 2MASS database using an algorithm his team developed called the Maxium Reduced Proper Motion method (Phan-Bao et al. 2003). The main goal of this project is to allow a better determination of the luminosity function and density of ultra cool dwarfs in the Galactic plane.

Dr. Phan-Bao's second project involves observational measurement of the magnetic fields in M dwarfs in order to resolve discrepancies in current models, which contradict each other and, confusingly, are in agreement with some observations and disagreement with others. Dr. Phan-Bao will use the Espadons instrument at CFHT to study properties of the magnetic field topology over the M3-M6 spectral type range and a wide range of rotational velocities, obtain the correlation between the H-∞ equivalent width and net magnetic field strength in the chromosphere.

Dr. Phan-Bao will have several trips abroad and plans to publish two papers using the support from the Chrétien program.

lobbying activity of the AAS. The Fellow is also charged with tracking the federal budget process and contributing a chapter on astronomy funding to the annual AAAS report on federal R&D spending. Through this position, I have attended briefings and hearings on the Hill and glimpsed the inner workings of Congress. Other job responsibilities include communicating with the membership on policy issues, through Informational Emails, Action Alerts, and of course this Newsletter, and also updating the Public Policy web pages of the AAS.

Check out our newly redesigned website for more information and for instructions on how to apply. Although I am leaving the AAS, my email account should continue to work (at least for a few months), and I am happy to answer questions about the position. Please drop me a line!



# John Bahcall Fellowships at IAS

Bahcall Iohn (1934-2005) was President of the American Astronomical Society from 1990 to 1992 and a faculty member at the Institute for Advanced Study in Princeton from 1971 until his death. He made fundamental contributions

to astronomy and astrophysics in subjects ranging from solar neutrinos to galactic structure, quasars, and cosmology; was a tireless advocate of the Hubble Space Telescope; an international scientific leader in the astronomical community and Chair of the National Decadal Survey for the 1990's; and has established a world-leading postdoctoral program in astrophysics at the Institute.

To commemorate Bahcall's achievements, the Institute has established the John Bahcall Fellowship Program to support five-year appointments for outstanding postdoctoral scholars at the Institute. These Fellowships are a fitting tribute to John's achievements, to his love of science and his colleagues, and his high standard of excellence. Institute Trustees, Faculty, and former Members in astrophysics have contributed the funds to endow two Fellowships, and endowment funding for two additional Bahcall Fellowships is currently underway.

With this announcement, we inform the AAS membership of the Bahcall Fellowship Program and encourage outstanding candidates to apply.

Those interested in contributing to the Bahcall Fellowships Fund can contact Nadine Thompson (nadinet@ias.edu), Director's Office, Institute for Advanced Study, Einstein Drive, Princeton, New Jersey 08540.

## Fellowships on AAS Website

Fellowships brought to the attention of the AAS Executive Office are listed online at: www.aas.org/career/fellowships.

# Honored Elsewhere

#### Goldreich Awarded 2007 Shaw Prize

AAS member Peter Goldreich of Caltech and the Princeton Institute for Advanced Study was awarded the Shaw Prize in Astronomy 2007 in recognition of his lifetime achievements in theoretical astrophysics and planetary sciences. Goldreich is universally regarded as one of the most influential and admired theorists in modern astronomy; indeed, the quality of his work, insights, and accomplishments set the gold standard for the field.

Goldreich is currently a Professor of the School of Natural Sciences at the Institute for Advanced Study, Princeton and the Lee A. DuBridge Professor of Astrophysics and Planetary Physics at Caltec). He became emeritus professor at Caltech in 2003. He received his BS in Engineering Physics from Cornell University in 1960 and his PhD in Physics in 1963. Before joining the faculty at Caltech, he was an assistant professor of Astronomy and Geophysics at the University of California, Los Angeles, from 1964 to 1966.

### Ringermacher Receives Cooper Black Award

The Mensa Education & Research Foundation announced that AAS member Harry I. Ringermacher is the 2007 recipient of the Copper Black Award, given annually for exceptional creativity and problem solving. Ringermacher's invention of a flexible imager was selected by a panel of eight distinguished Mensans.

Ringermacher received his Bachelor's degree and PhD in Physics at Washington University in St. Louis, Missouri. Later, he did a post doctoral fellowship at NASA's Langley Research Center in Virginia.

The Copper Black Award was named after the late Ms. Copper Black, a Mensa member who greatly valued creativity. In her will she left a legacy funding a special annual award to recognize an outstanding creative achievement by a member of American Mensa. Ringermacher is the sixth Mensa member to receive this award and the only person to ever receive it twice.

## Announcements

#### Swift Guest Investigator Program

Cycle-4 Deadline: 9 November 2007

The Swift Guest Investigator (GI) Program solicits proposals for basic research relevant to the Swift mission. The primary goal of this mission is to determine the origin of gamma-ray bursts (GRBs) and use these bursts to probe the early universe. Swift is also a valuable asset for obtaining multiwavelength images, spectra, and light curves on interesting targets of opportunity (TOOs) and other non-transient sources. The Swift Guest Investigator program is part of the NASA Science Mission Directorate's Research Opportunities in Space and Earth Sciences (ROSES) - 2007.

Compared to Swift GI Cycle-3, a new aspect of Cycle-4 is that observing time will be made available to scientists at U.S and non-U.S. institutions to study non-GRB, non-transient astrophysical sources. Cycle-4 will also continue the opportunity initiated in Cycle-3 for GIs to propose TOOs on non-GRB transients. Funding through the NASA Swift GI Program is available only to scientists at U.S. institutions. Consistent with Explorer Program policy, there will be no proprietary data rights to observations conducted with Swift.

More information about the Swift Guest Investigator opportunity may be found at NASA's NSPIRES site at http://nspires.nasaprs.com/ or the Swift site at http://swift.gsfc.nasa.gov/.

# Spitzer Space Telescope Cycle-5 Call for Proposals

Proposal Deadline: 16 November 2007, 5:00 PM PST

On behalf of NASA and the Spitzer Space Telescope Project, the Spitzer Science Center (SSC) at Caltech is pleased to announce the release of the Cycle-5 Call for Proposals (CP) for Spitzer Space Telescope General Observations (GO), Guaranteed Time Observations (GTO), and funding for Archival Research (AR) and Theoretical Research (TR) programs. Investigators worldwide from all types of institutions are eligible to submit proposals in response to this CP.

Cycle-5 is the last cryogenic cycle for Spitzer, i.e., when MIPS, IRS, and all of the IRAC channels will be available for use.

There are several new features in the Cycle-5 CP, and investigators are urged to consult sections 1 and 2 of the document early in their proposal planning process for a summary of major changes from Cycle-4. Some of the major changes are:

- 1) One year of observations will be selected, but we expect only half of these will fit into the time available prior to the cryogen depletion;
- 2) there will not be joint proposals this cycle with HST or Chandra, due to timing differences among the Great

Observatories' proposal cycles;

- 3) Large (200 hour) proposals will be accepted, but are discouraged, due to uncertainties in the Cycle-5 duration;
- 4) statistical proposals will be accepted, where a specified number of observations are required, but the set of observations required is not unique;
- 5) time is being set aside for what the Cycle-5 TAC considers "high risk/high gain" science;
- 6) moving target observations will now be automatically assessed an extra overhead in time duration; and,
- 7) requests for and dispersal of funding for AR and TR programs has been greatly simplified. AR/TR programs are only offered for six fixed funding amounts between \$25,000-\$150,000.

Observations for Cycle-5 will commence on 1 July 2008. We expect the cryogen to be depleted completely during the cycle in approximately March 2009, with an expected uncertainty of one month and a worst case uncertainty of three months.

All proposals must be submitted electronically using Spot, the SSC proposal planning and submission software, and received no later than Friday, 16 November 2007, 5:00 PM PST.

The S16 version of Spot is now available from the SSC website and via the auto-update feature in Spot, and proposers must use this version of the software to submit their proposals. Note: Proposers attempting to install Spot on a 64-bit Linux platform may encounter problems doing so; please see the note "For All Users" on the Spot installation webpage.

\*\* Proposal PDF files MUST be prepared with the Cycle-5 templates available at the Proposal Kit website. \*\*

All programmatic and technical information for Cycle-5 is available electronically from the Proposal Kit section of the Spitzer Science Center website. The URL is http://ssc.spitzer.caltech.edu/propkit/.

Any questions should be addressed to the Spitzer Helpdesk at help@spitzer.caltech.edu.

## **NSO Observing Proposals**

Deadline: 15 November 2007

The current deadline for submitting observing proposals to the National Solar Observatory is 15 November 2007 for the first quarter of 2008. 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 www.nso. edu/general/observe/. A web-based observing-request form is at www2.nso.edu/cgi-bin/nsoforms/obsreq/obsreq.cgi. Users' Manuals are available at nsosp.nso.edu/dst/ for the

SP facilities and 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.

## International Research Experience for **US Grad Students**

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

The program will support four full-time summer research positions for eight weeks starting 16 June 2008 (date subject to change). For each participant, the program will provide round-trip air-coach travel to and from Bangalore, India, a stipend of \$500 US per week, accommodation, miscellaneous travel (field trips) and incidental expenses, and medical expenses and insurance.

Additional information and application materials are available at http://eo.nso.edu/ires/. All application materials must be received by 18 January 2008.

## Summer Opportunitues on AAS Website

Summer opportunities brought to the attention of the AAS Executive Office are listed online at: www.aas.org/career/ summer.

## SOFIA Community Task Force Workshop -I: Early Science Opportunities with SOFIA

The first of a series of NASA Stratospheric Observatory for Astronomy (SOFIA) Workshops will be held at the 211th Meeting of the AAS in Austin, TX on Tuesday, 8 January 2008 from 1 to 5 pm. This Workshop is organized by the SOFIA Community Task Force (SCTF), whose objectives are to inform and engage the astronomical community in planning for the SOFIA General Observer (GO) science program, and to develop a long-range science plan that will realize the potential of SOFIA as as a premier observatory and as a platform for developing forefront technology.

There will be a description of the state of the SOFIA Project and a charge to several working groups that will meet in splinter sessions to consider the early SOFIA general observer (GO) science plan. The working groups will discuss, revise, and update the scientific cases associated with the SOFIA Mission. Following the splinter sessions, a plenary session will be held to summarize working group findings and to charge the working groups with providing input to a SOFIA Science Opportunities Document. The working groups will be assigned tasks required to produce this document following the workshop. Their products will be reviewed and revised at the "SOFIA Community Task Force AAS Workshop II" to be held at the 212th AAS Meeting in St. Louis, Missouri in June, 2008.

Everyone is welcome. This is your chance to help define the ways that SOFIA will best serve the science community. We specifically encourage attendance by astronomers who have never had airborne astronomy experience, theoreticians, and the large new community of astronomers doing infrared astronomy with the Spitzer Space Telescope. Refreshments will be provided. For more information, contact Robert D. Gehrz, SCTF Leader, Department of Astronomy, School of Physics and Astronomy, 116 Church St., SE, University of Minnesota, Minneapolis, MN 55455, phone: (612) 624-7806, e-mail: gehrz@astro.umn.edu.

The Stratospheric Observatory for Infrared Astronomy (SOFIA) began its post-modification test flight series on 26 April 2007 in Waco, Texas. Erik Lindbergh joined NASA in Waco on 21 May to re-dedicate the plane "Clipper Lindbergh" in honor of his grandfather, pioneering aviator Charles A. Lindbergh. The plane was originally dedicated by Anne Morow Lindbergh. SOFIA is now undergoing further testing and flight integration at NASA Dryden Flight Research Center, Edwards Air Force Base, California. It is expected to begin science demonstration flights with the initial instrument complement in early 2009. The current status of the SOFIA Project and the SOFIA science case are summarized in PowerPoint presentations that may be viewed at www.sofia.usra.edu/Science/speakers/powerpoint.html.

## Young Scientist's Prize in Astrophysics

The Commission on Astrophysics of the International Union of Pure and Applied Physics (IUPAP) solicits nominations for its 2008 prize for an outstanding young astrophysicist, to be presented in December 2008 at the 24th "Texas" Symposium on Relativistic Astrophysics in Victoria, BC, Canada. Candidates for the prize must not have completed more than eight years of post-PhD research and related activities at the time of the award. The prize will consist of an IUPAP Medal, travel expenses to the meeting where it is

continued on page 18

presented, and possibly a small cash award. The winner will probably be asked to give a short talk about the work for which the prize is awarded at the meeting.

Nominations can come from any astrophysicist who knows the nominee's work well. A nomination should consist of a letter explaining the nominee's qualifications, a complete CV and list of publications, and two letters of support, at least one of which must come from someone who is not at the nominee's institution, is not a past mentor, and is not a frequent co-author or other close collaborator. Materials must arrive by 1 March 2008 for full consideration. Nominations should be sent to the Acting Chair and the Secretary of the Commission and to the Chair of the Selection Committee.

Acting Chair: M. Victoria Fonseca, Dept. Fisica Atomica, Molecular y Nuclear, Facultad de Ciencias, Universidad Complutense de Madrid, E-28040 Madrid, Spain, fonseca@ gae.ucm.es

Commission Secretary: Patricia Whitelock, South African Astronomical Observatory, PO Box 9, 7935 Obervatory, South Africa, paw@saao.ac.za

Selection Committee Chair: Virginia Trimble, Physics Dept, Univ of California, Irvine CA 92697-4575, USA, vtrimble@ uci.edu

The first prize was awarded in 2006 to Marta Burgay of Italy, for discovery and characterization of the first double pulsar. She received the award and spoke at the December 2006 "Texas" Symposium in Melbourne, Australia.

## SPIE Astronomical Telescopes and **Instrumentation 2008**

You are invited to present your latest research at SPIE Astronomical Telescopes and Instrumentation 2008. The theme of this year's event is Synergies between Ground and Space, developing the goals, technologies, and systems for decades ahead. A central goal of the meeting is to work towards long term coordination between our research goals and the development of ground and space facilities.

Abstracts are welcome in a variety of topic areas including space, ground-based and airborne telescopes, optical and IR interferometry, and adaptive optics systems. Given the wide scope of this symposium, we also encourage submissions beyond the purely scientific, such as the development of enabling technologies, addressing the challenges of systems engineering, managing large, long term projects and securing adequate funding over development and operational lifecycles.

The event is located in Marseille, France this year, a perfect location for researchers from around the world to join forces.

Attendees will enjoy not only the Mediterranean atmosphere, but will also benefit from a wide range of exhibits, courses, and special events. We encourage you to submit an abstract, collaborate with your colleagues from around the world, and move the field towards the decades ahead. For all of the pertinent information, visit http://spie.org/astronomicalinstrumentation.xml

## IEEE Journal of Selected Topics in Signal **Processing**

The IEEE Journal of Selected Topics in Signal Processing has announced a Call for Papers for a special issue on "Signal Processing for Astronomical and Space Research Applications." Manuscript submissions are due 1 February 2008.

Topic to be covered include, but are not limited to:

- Signal processing algorithms and architectures for large radio telescopes
- Imaging techniques for radio telescope arrays
- Calibration and RFI mitigation techniques for radio astronomy
- Signal processing for analyzing CMB and other cosmological data analysis
- Signal processing and digital image restoration for optical and IR astronomy (including blind, non-blind, single frame, image sequence, and speckle methods)
- Signal processing to control adaptive optics in large telescopes
- Source separation in astronomy, astrophysics and cosmology
- Inverse problems in astrophysics
- Imaging and detection in gamma-ray radio astronomy
- Processing for antenna array feeds used with large singledish radio telescopes

Further information can be found at: www.et.byu.edu/groups/ece\_jstsp/ AstronomyandSpaceCFP.pdf

#### **New Benefit for AAS Members**

Computing in Science & Engineering (CiSE) is a bimonthly publication that brings computational tools and methods to the 21st century science. For the first time, CiSE subscriptions are reduced for AAS members--\$45 for print and online (\$55 outside the USA). Two issues in 2008 will cover the "Sloan Digital Sky Survey Archive" and "Computational Astrophysics." Subscribe at www.aip.org/ecomm/cise

## Calendar

#### AAS & AAS Division Meetings

#### DPS 2007 Annual Meeting

7-12 October 2007, Orlando, FL Contact: Humberto Campins (campins@physics.ucf.edu) www.aas.org/dps/meetings.html

#### AAS 211th Meeting w/HAD & HEAD

7-11 January 2008, Austin, TX Contact: Kelli Gilmore (gilmore@aas.org) www.aas.org

#### **HEAD 2008 Meeting**

30 Mar-3 April 2008, Los Angeles, CA www.aas.org/head/

#### DDA 2008 Meeting

28 April-1 May 2008, Boulder, CO http://dda/harvard.edu

#### Other Events

#### Chandra Fellows Symposium

10 October 2007, Cambridge, MA Contact: Dr. Nancy Remage Evans (nevans@cfa.harvard.edu) http://cxc.harvard.edu/fellows/

#### New Horizons in Astronomy: Frank N. Bash Symposium 2007

14-16 October 2007, Austin, TX Contacts: Kurtis Williams (kurtis@astro.as.utexas.edu) Justyn Maund (jrm@astro.as.utexas.edu) www.as.utexas.edu/new horizons/

## IAU Symposium No. 248 A Giant Step: from Milli- to Microarcsecond Astrometry

15-19 October 2007, Shanghai, China Contact: Imants Platais (imants@pha.jhu.edu)

### IAU Symposium No. 249 **Exoplanets: Detection, Formation** and Dynamics

22-26 October 2007, Suzhou, China Contact: Ji-Lin Zhou (zhoujl@nju.edu.cn)

## Eight Years of Science with Chandra 23-25 October 2007, Huntsville, AL Contact: Steve O'Dell

(chandra8@head.cfa.harvard.edu) http://cxc.harvard.edu/symposium\_2007

#### \*Chandra Calibration Workshop

25 October 2007, Huntsville, AL Contact: Vinay Kashyap (ccw@head.cfa.harvard.edu) http://cxc.harvard.edu/ccw/

### A Population Explosion: The Nature and Evolution of X-ray Binaries in **Diverse Environments**

28 Oct-2 Nov 2007, St. Petersburg Beach, FL Contact: Reba Bandyopadhyay (xraybinary@astro.ufl.edu) http://conference.astro.ufl.edu/ XRAYBIN/

### \*Astrophysics 2020: Large Space Missions Beyond the Next Decade 13-15 Nov 2007, Baltimore, MD

Contact: Marc Postman (postman@stsci.edu) www.stsci.edu/institute/conference/ astro2020

## 12th Latin-American Regional IAU Meeting (LARIM-2007)

26-30 Nov 2007, Venezuela Contact: Gustavo A. Bruzual (bruzual@cida.ve)

#### \*Galaxy and Black Hole Evolution: Towards a Unified View

28-30 November 2007, Tucson, AZ Contact: David Ballantyne (agnconf@as.arizona.edu) http://ursa.as.arizona.edu/~rad/ galagn.html

#### The Evolving Insterstellar Medium in the Milky Way and Nearby Galaxies

2-5 December 2007, Pasadena, CA Contact: A. Noriega-Crespo & K. Sheth (kartik@astro.caltech.edu, alberto@ ipac.caltech.edu) http://ssc.spitzer.caltech.edu/ mtgs/ ismevol/

## IAU Symposium No. 250 Massive Stars as Cosmic Engines 10-14 December 2007, Kauai, HI Contact: Paul A. Crowther (Paul.Crowther@sheffield.ac.uk) http://www.ifa.hawaii.edu/iau250/

#### \*Miami 2007

13-18 Dec 2007, Fort Lauderdale, FL Contact: Thomas Curtright (curtright@physics.miami.edu) http://server.physics.miami.edu/ ~cgc/Miami2007.html

#### \*IAU Symposium No. 251

Organic Matter in Space 18-22 February 2008 Hong Kong, China Contact: Sun Kwok (sunkwok@hku.hk)

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



Newsletter 137 September/October 2007

Periodical Postage Paid Washington DC

# Washington News

L. Jeremy Richardson, John Bahcall Public Policy Fellow richardsonlj@aas.org



By the time this newsletter reaches your hands, the humidity in DC will have (hopefully) subsided, and I will have departed the AAS to start my new position. At the beginning of September, I will start a one-year AAAS (yes, three A's) fellowship, the Roger Revelle Fellowship

in Global Stewardship. At some point I suppose I will have to stop getting these fellowship appointments and look for a real job!

I would like to use my last newsletter article as the John Bahcall Public Policy Fellow to thank Kevin Marvel and the AAS Council for creating this position, express what a great experience this has been in my professional development, and encourage all you early-career types out there to consider applying for the fellowship.

The appointment is intended to be a short-term, six-month appointment, but with considerable flexibility. I elected to work full time for six months, but you have the option of working half-time for a year. Most of the public policy activities of the society occur in the first half of the year, so the full-time-for-six-months option is recommended.

While a six-month position may not provide much relief from the job search, it certainly places the fellow in a good position to land a more permanent position in the policy arena after the appointment is over. I believe that my policy experience at the AAS was a great asset (maybe even a key one) in my application for the Revelle Fellowship. I was asked about my work at the AAS during the interview, even though I would only been on the job for a month. Working at the AAS has allowed me to network with people from a variety of other scientific societies working on public policy issues.

The astronomy world provides a unique opportunity to learn about the inner workings of public policy. Following the federal budget for astronomy research requires paying attention to the budgets for NSF and NASA (and to a lesser extent, DoE). The astronomy world is a much smaller one to follow, unlike climate change research, for example, where funds are spread over many agencies, and other disciplines and industries that have to consider regulatory issues as well.

The primary responsibility of the Bahcall Fellow is to organize the annual Congressional Visits Day, which is the primary