

# NEWSLETTER

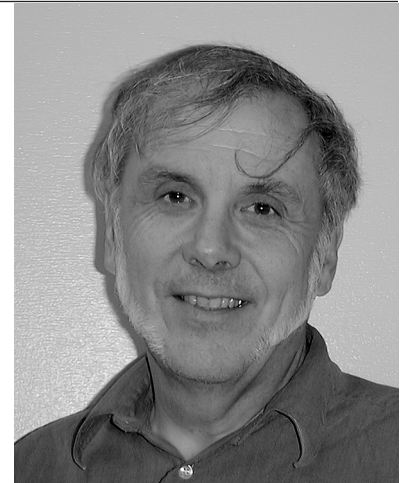
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## Sneden Will Be New *ApJ Letters* Editor

At its meeting on 6 January 2002, the AAS Council approved Professor **Christopher Sneden** to succeed Professor **Alexander Dalgarno** as Editor of *The Astrophysical Journal Letters*. The transition of editorial responsibilities is currently being planned, but is expected to begin sometime around mid-summer 2002 and to be complete by the end of the calendar year. A search committee chaired by Bruce G. Elmegreen, of IBM's T. J. Watson Research Center and Chair of the AAS Publications Board, recommended this appointment to the AAS. This selection was reached following an extensive solicitation of recommendations from the community. The recommendation of this committee was reviewed and endorsed by the AAS Publications Board prior to the Council action.

Dr. Sneden is the Rex G. Baker and McDonald Observatory Centennial Research Professor of Astronomy at the University of Texas at Austin. His research interests include spectroscopy of unevolved and aging stars, nucleosynthesis of the elements, chemical evolution of the galaxy, stellar populations, and the age of the galaxy. He received an undergraduate degree from Haverford College, his doctorate from the University of Texas at Austin, and was associated with Indiana University, Lick Observatory, the University of Wyoming, and the University of Washington prior to becoming a regular faculty member at Texas. He has published numerous papers in AAS Journals and has served as a Scientific Editor for *The Astrophysical Journal* since 1996.

In reaction to this appointment Dr. Sneden states: "Dr. Dalgarno has worked very hard over three decades to build the *ApJ Letters* into the premier refereed fast publication outlet for astrophysics. His service to our profession has been enormous, and it is an honor to be given the opportunity to try to carry on and build from his efforts. I'm looking forward to collaborating with Dr. Dalgarno in making a smooth transition in *Letters* duties." Further details of the editorial transition will be announced in *The Astrophysical Journal Letters*, the June AAS Newsletter, and in AAS electronic communications. In the interim, authors should continue to work with Prof. Dalgarno in the customary manner.



Christopher Sneden, Rex G. Baker and McDonald Observatory Centennial Research Professor of Astronomy at the University of Texas at Austin will be next *ApJL* Editor.



## June Meeting: AAS & SPD Together in Albuquerque

The University of New Mexico LOC welcomes the AAS to Albuquerque for its 200<sup>th</sup> Meeting, **2-6 June 2002**. The Hale Prize Lecture by **Eric Priest** and the Heineman Prize Lecture by **Richard Bond** are featured at this meeting along with

invited talks by **John Matthews**, **Fran Bagenal** and **Sara Martin**. Sen. **Pete Domenici** has been invited to give the Public Policy address. There will also be many exciting Special and Topical Sessions at this joint meeting: Extra Galactic Magnetic Fields; Very High Energy Gamma-ray and Neutrino Astronomy; Research and Education: NSF Astronomy and Astrophysics Postdoctoral Fellowships (AAPF) Program; Mining the Sky in Real Time; Quo Vadis Astronomy Education Research; Helioseismology and the Solar Interior High Energy Processes in Normal Galaxies: A Multi-wavelength Look; Large-scale Structure with the SDSS; Building a Virtual Observatory;

Gaseous Galaxy Halos and Galaxy Edges; Core-Collapse of Massive Stars: Supernovae and Gamma-Ray Bursts; Supernova Remnants in Nearby Galaxies; Understanding Solar Magnetism, the Advanced Technology Solar Telescope; Cosmological Models and Instrumentation from Low Temperature Physics; New Frontiers in Solar and Space Weather Radiophysics; The Future of Extreme Ultraviolet Astronomy; The New Radio Universe; Angular Momentum Evolution of Young Stars; Structure and Dynamics of Chromospheres; AAS Light Pollution Committee: Space Debris: Natural, Cosmic and Manmade; and The Magnetic Structure of CMEs.

Tours of the VLA and the The LodeStar Astronomy Center are planned. The banquet will feature an authentic New Mexican meal with entertainment by the Flamenco Dance Conservatory.

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## LETTERS TO THE EDITOR

### Establishing a Schommer Education Fund

Dear Editor:

CTIO Astronomer Bob Schommer, a friend to many of us, died tragically on December 12. He left behind his wife Iris Schommer, and children Paulina (just finished one year of college in Santiago), Andrea (just finished 11th grade in La Serena), and Robert (just finished preschool).

AURA/NOAO/CTIO suggested that the most fitting memorial would be a fund to ensure that his children can have the education that Bob would have been able to provide for them. I am asking other astronomers to consider giving to this fund. Please send contributions to *Schommer Education Fund*, c/o NOAO Director's Office, PO BOX 26732, TUCSON, AZ 85726.

Make checks out to "Schommer Education Fund." While the contributions themselves are not tax deductible, the money in this fund will grow tax free. We have also assembled a picture gallery of Bob's life, ranging from childhood photos, to photos at U. Chicago in the 1960s, to very recent photos. You can view this gallery at <http://lithops.as.arizona.edu/~jill/Pictures/Bob>. Let me thank you all in advance.

Edward W. Olszewski  
edo@as.arizona.edu

### SPECIAL SESSIONS Seattle Winter 2003 Meeting

The AAS will be meeting in Seattle, WA in January 2003. Proposals for Special Sessions (from Members only) are due **no later than 15 May 2002**. Send proposals to Diana Alexander at [diana@as.org](mailto:diana@as.org).

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@as.org](mailto:aas@as.org); <http://www.aas.org>. Unless otherwise noted, the *Newsletter* is copyright 2002, American Astronomical Society.

The \$110.00 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 Avenue, NW, Suite 400, Washington, DC 20009-1231.

*Items of general interest* and appropriate photos to be considered for publication in the *Newsletter* should be sent to Lynn Scholz at [lscholz@as.org](mailto:lscholz@as.org). For information about submitting articles, deadlines, etc., see <http://www.aas.org/publications/newsletter.html>. Items submitted for the *AAS Newsletter* are not automatically included in the AAS Electronic Announcements or vice versa. Submit electronic announcement items to [ela@as.org](mailto:ela@as.org).

*Letters to the Editor* on current issues of importance to astronomers are welcomed. Letters must be signed and should not exceed 250 words. Letters must be received by Jeff Linsky, Associate Editor, Letters, no later than one week prior to the *Newsletter* deadline (see Website). You may contact Jeff Linsky by email [jlinsky@jila.colorado.edu](mailto:jlinsky@jila.colorado.edu), Tel: 303-492-7838, or FAX: 303-492-5235. The Associate Editor may edit letters, but will consult with authors before doing so. Letters will be published at the discretion of the Editors.

**AAS Publications Coordinator:** Judy Johnson  
**Editor:** Robert W. Milkey  
**Associate Editor:** Lynn Scholz  
**Associate Editor, Letters:** Jeffrey Linsky, U. Colorado

## Bylaws Amendments Proposed

The following proposed amendments to the AAS *Bylaws* are being published for comments prior to being considered at the AAS Council meeting in June of 2002. Any member wishing to comment on these should address the comment by mail or email to Arlo Landolt, AAS Secretary, [aassec@rouge.phys.lsu.edu](mailto:aassec@rouge.phys.lsu.edu).

### Qualifications for Emeritus Membership

One of our members pointed out that the present wording in the *Bylaws* defining Emeritus Membership states that the member must be "retired from active work" and this may imply that one should no longer be active in astronomical research. It is proposed that Article I-4 be changed as follows:

#### ARTICLE I. MEMBERSHIP

##### 4. Emeritus Status

Any member who has retired from ~~active work~~ **gainful employment** and whose years of membership in the Society total at least ten (10), shall be eligible to be transferred to the Emeritus status in the class of membership held at the time of that request. Dues for members in Emeritus status shall be set at 50% of the Council-determined dues for active members, rounded up to the nearest dollar. The implementation of dues for those members in Emeritus status shall go into force for any member changing to Emeritus status after 1 January 1998. The Council shall determine any additional rights or privileges of Emeriti members. Requests for transfer to Emeritus status shall be submitted to the Executive Office of the Society for approval.

This language mimics the language used by the American Physical Society and more directly states the practice that the AAS has been following.

### Society Officers

At the present time the Executive Officer is the only officer of the corporation resident at the headquarters offices. Many routine business transactions, e.g. as bank forms, tax returns, and the DC reports required to maintain corporate status, require the signature of at least one officer. Some of these forms require the signature of two officers. Traditionally the corporate officers of the AAS have been the President, Treasurer, Secretary, and Executive Officer.

There is no legal requirement that corporate officers serve on the Board of Directors (Council) and designation of staff as officers is quite routinely done in other organizations such as AIP.

Adding a one or more officers in the Washington headquarters would provide backup in the event that the Executive Officer were absent for an extended period and would simplify many routine transactions. It would be very useful for Council to have the power to make such appointments as it may see fit. This proposed amendment to the *Bylaws* does not, by itself, make any such appointment – it only enables the Council to do so.

This may be accomplished by amending Article II.1 of the *Bylaws* to add the sections in italics:

## ARTICLE II. OFFICERS OF THE SOCIETY

## 1. Enumeration of Officers

The elected officers of the American Astronomical Society shall be President, President Elect, or in alternate years, Past President, three Vice Presidents, Secretary, Treasurer, Education Officer, and Chair of the Publications Board. The Council shall appoint an Executive Officer. **Among these the President, the Secretary, the Treasurer, and the Executive Officer shall serve as the officers of the corporation.**

**In addition, the Council may appoint such other corporate officers as it deems fit. Any such other officers chosen by the Council shall hold office for such period, have such authority and perform such duties as the Council may from time to time determine. No officer appointed by the Council pursuant to this provision shall serve as a member of the Council by reason of his or her appointment. Any officer appointed by the Council pursuant to this provision may be removed, either with or without cause, by the affirmative vote of a majority of the whole Council.**

## Voting by Electronic Ballots

The law that governs the operation of non-profit corporations within the District of Columbia was recently changed to permit elections to be held by electronic balloting as well as by mail. The AAS may wish to do this at some future date and it is a prerequisite to change the *Bylaws* to permit the Council to adopt such a procedure, should it wish to do so.

## ARTICLE IV. ELECTION OF OFFICERS AND COUNCILORS

## 3. Balloting

In order to be included on the final slate of candidates, the candidate must supply written consent that he or she is willing to serve, if elected. The ballot shall be mailed **distributed, by mail or electronic means**, to all individual members no less than forty-five (45) days before the deadline for counting. No provision for write-in candidates will be made on the ballot.

## 4. Nominating and Voting Procedure

The Council shall determine such additional requirements and procedures as needed and shall assign the responsibilities for preparing the ballot and recording the votes. **Electronic voting shall be permitted if the Council determines it is appropriate.** All questions of procedure and interpretation shall be resolved by the Council.

## ARTICLE VI. COMMITTEES

## 1. The Nominating Committee

e. In order to be included on the final slate of candidates, the candidate must supply written consent that he or she is willing to serve. The ballot shall be mailed **distributed, by mail or electronic means**, to all members no less than forty-five (45) days before the deadline for counting. No provision for write-in candidates will be made on the ballot.

## COUNCIL ACTIONS

The following are among the most noteworthy of the actions taken by the AAS Council on 6 January 2002 at its 199th Meeting in Washington, DC.

- Authorized the Executive Officer to appoint Kevin B. Marvel as the Deputy Executive Officer of the AAS;
- Agreed to publish in the March 2002 *Newsletter* a proposed Bylaws amendments to permit electronic voting; changing the wording in regarding Emeritus Membership; and to allow the appointment of additional Corporate Officers (see explanation and proposed wording changes, pages 2-3).
- Endorsed the concept of an electronic (only) journal of astronomy education (see article on page 6);
- Accepted the report of the Publication Board;
- Decided to support the American Institute of Physics (AIP) State Department Fellowship Program at the \$7,500 level, with the proviso that someone from the AAS be on the selection committee. Participation was to be for a three year period, after which a review of the program would be made. (see article on page 23);
- Agreed that the rules for the Warner Prize be modified to include candidates no older than 35 years in the calendar year of the award, or less than eight years beyond obtaining the PhD. The motion also specified that the Warner rules be so modified for a period of five years and that the effect of the change be reviewed by Council at the end of that time;
- Voted to appoint Christopher Sneden as the new Editor of the *Astrophysical Journal Letters* for a five year term, extending from 1 January 2003 through 31 December 2007 (see article on page 1);
- Re-appointed Julie H. Lutz Associate Editor of the *Astronomical Journal* for a three year term ending 31 December 2004;
- Adopted a motion to thank outgoing Scientific Editors; and
- Accepted the recommendations of the Committee on Appointments for the vacancies on the several AAS Prize Committees.

## 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 Officers begin their terms after the Annual Business Meeting at the June 2002 Albuquerque Meeting.

<b>Vice-President</b>	Pierre Demarque
<b>Treasurer</b>	Leonard V. Kuhi
<b>Publications Board Chair</b>	Sumner G. Starrfield
<b>Councilors</b>	Bruce W. Carney Christopher Sneden Jean H. Swank
<b>USNC-IAU</b>	Nicholas E. White
<b>Nominating Committee</b>	Margaret M. Hanson



## PUBLICATIONS

### Seeking *ApJ* Scientific Editors

Robert C. Kennicutt, *ApJ* Editor-in-Chief, [apj@as.arizona.edu](mailto:apj@as.arizona.edu)

In the coming year the American Astronomical Society plans to fill two or three appointments to the position of Scientific Editor of *The Astrophysical Journal*. The Scientific Editors (SEs) play a vital role in maintaining the high scientific standards of the *ApJ*. Each editor oversees the peer review of 100-200 papers per year, and together with the other SEs advises the Editor-in-Chief on issues of general editorial policy for the *ApJ*. Appointments are for terms of three years, subject to approval by the AAS Publications Board and the AAS Council, with an option for a second term at the discretion of the Editor-in-Chief. Editors appointed in this round will begin startup activities this fall and their formal terms on 1 January 2003.

For the coming year we hope to fill editorial vacancies in two subfields, *solar astrophysics* and *high-energy astrophysics*.

Applications from theorists or observers are welcomed, but successful candidates will be expected to oversee the peer review of theoretical and observational papers in their respective subfields. Although we are not actively recruiting for editors in other subfields at this time, expressions of interest from scientists in all fields of astronomy and astrophysics are welcomed.

Candidates should have a strong record of published scientific research, and be prepared to commit the time (up to 20% FTE) that is required to carry out the duties of a Scientific Editor. Although these are largely volunteer positions, funding is provided for office equipment, secretarial support, travel to editorial meetings, and a modest stipend or research grant. Although all Scientific Editors are required to be members of the AAS during their terms of appointment, residence at a US institution is not a requirement.

Applicants should submit a *curriculum vitae*, a list of publications, and a brief (one or two page) cover letter that summarizes the candidate's qualifications and reasons for seeking an SE position. Applications should be mailed or faxed to Robert C. Kennicutt, Jr., Editor-in-Chief, *The Astrophysical Journal*, Steward Observatory, University of Arizona, Tucson, AZ 85721, Fax: 520-621-5153, Tel: 520-621-5145.

Successful candidates will also be asked to provide a brief letter of endorsement from their department head or director, indicating their agreement to the necessary time commitment upon the appointment as editor. Applications received by **31 March 2002** will receive full consideration. Informal inquiries about the positions may be directed by email to [apjrck@as.arizona.edu](mailto:apjrck@as.arizona.edu).

### Changes in the Executive Office

**Kevin B. Marvel** has been appointed Deputy Executive Officer. As Deputy, he will fill in for the Executive Officer during the latter's absences and will expand his overall involvement in Executive Office management. He will continue his primary responsibilities in the areas of public policy and employment services.

**Barbara J. Cannon** has assumed the title of Chief Financial Officer for the AAS. Her duties will remain unchanged since this effectively recognizes the role she has been filling during the past several years.

### 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 manuscript submission.

#### AASTeX Homepage:

<http://www.journals.uchicago.edu/AAS/AASTeX/>

#### User Support:

[aastex-help@as.org](mailto:aastex-help@as.org)

#### Journal Homepages/Manuscript Submission:

*AJ*: <http://www.journals.uchicago.edu/AJ/>

*ApJ*: <http://www.journals.uchicago.edu/ApJ/>

*ApJL*: <http://cfa-www.harvard.edu/apjl>

## COMMITTEE NEWS

### Status of Minorities in Astronomy

Charles Woodward, Chair, [chelsea@astro.umn.edu](mailto:chelsea@astro.umn.edu)

#### Committee Kicks Off at DC Meeting

Keivan Stassun, [keivan@astro.wisc.edu](mailto:keivan@astro.wisc.edu)

The Committee on the Status of Minorities in Astronomy (CSMA) hosted a special session and a social mixer at the AAS Meeting in Washington, DC. Both events were very well attended, with active participation from the Committee on the Status of Women in Astronomy (CSWA) and members of the Gay, Lesbian, Bisexual, Transgender, Queer astronomers (GLBTQastro) group.

#### Special Session

The purpose of the special session was to enhance the visibility of, and participation in, the CSMA by informing the Society about the CSMA's mission, goals, and activities. The session was also meant as an opportunity to solicit ideas on relevant issues, effective methods and strategies for achieving the CSMA's mission, and effective methods and strategies for engaging the broader community of the AAS membership.

**Keivan Stassun** presented the CSMA's new website (<http://www.astro.wisc.edu/csma>) and newsletter, *SPECTRUM*, as resources that are available to all AAS members.

**Chick Woodward**, CSMA Chair, presented statistics on the representation of minorities in astronomy. He emphasized that for Blacks, Latinos, and Native Americans, the under-representation in astronomy as compared to the general population is an order-of-magnitude problem. Some of these statistics can be found in the January 2002 issue of *SPECTRUM* (<http://www.astro.wisc.edu/csma/newsletter/spectrum.htm>).

Following these presentations, an open discussion ensued among all those in attendance. Some of the issues raised included

- the minority status of people of Asian descent, who are often perceived as over-served/over-represented in the physical sciences and engineering;



- the competing demands between scholarship and service often experienced by young minority faculty; there is the imperative to “get tenure first,” but if minorities say “no” to minority issues, who will say “yes”?
- the lack of active minority hiring and retention efforts (see feature article in *SPECTRUM* for more about this issue);
- the importance of tapping the pool of minority undergraduates at historically minority-serving institutions
- the critical role of K-12 education and outreach for informing minority youth about opportunities in science
- the need to engage *all* astronomers – not just minorities – in minority issues: minorities are often the only advocates for minority issues in their institutions.

### Social Mixer

The CSMA hosted an evening “social mixer” for the purpose of informally bringing together AAS members interested in issues of equity and diversity (see photo, page 11). This was also an opportunity for members of the CSMA, CSWA, and GLBTQastro to get to know one another. Sponsored by *Astronomy Magazine*, the mixer was attended by approximately 50 people, including undergraduates, graduate students, postdocs, faculty, and members of the AAS Council.

### Calling All Minorities

To enhance the visibility of minorities within the AAS, the CSMA has created an online directory of minority AAS members (<http://www.astro.wisc.edu/csma>). We strongly encourage all minority AAS members to add their information to this directory, and we encourage other AAS members to use this directory (as well as the CSMA’s minority speakers list) as a resource.

The current (January) issue of the *SPECTRUM* newsletter is still available online at the CSMA website (<http://www.astro.wisc.edu/csma>). We encourage all AAS members to sign up using the online form to receive future issues of *SPECTRUM* by mail. The next issue of *SPECTRUM* will be available in June 2002.

We would also like to hear from minority AAS members who are within one year of receiving (or having received) their PhD. We hope to begin highlighting recent minority PhD recipients in the *SPECTRUM* newsletter. If you are a recent minority graduate (or know one), please send email to [csma-info@astro.wisc.edu](mailto:csma-info@astro.wisc.edu).

### Contribute to *SPECTRUM*

All AAS members are welcome and encouraged to submit contributions to the CSMA’s semi-annual newsletter, *SPECTRUM*. Appropriate submissions include opinion pieces, information about minority outreach efforts, discussions of personal experiences with minority-related issues, etc. We are also interested in learning about articles that have appeared in other publications that we may be able to reprint. Submissions should be directed to *SPECTRUM* editor, Keivan Stassun ([keivan@astro.wisc.edu](mailto:keivan@astro.wisc.edu)).

## Employment

Andrea Schweitzer, Chair, [schweitz@frii.com](mailto:schweitz@frii.com)

### Postdoc Session Highlights

The Employment Committee sponsored a special session on postdocs on 7 January 2002 during the AAS Washington, DC meeting. The session began with the presentation, “Enhancing the Postdoctoral Experience for Scientists and Engineers” by **Maxine Singer**, president of the Carnegie Institute of Washington. Dr. Singer was chair of the National Academy’s Committee on Science, Engineering and Public Policy (COSEPUP).

The COSEPUP Committee began by addressing the needs of graduate students and their mentors and produced the following reports, all of which are online at the National Academy Press Website, <http://www.nap.edu/>:

- “Reshaping the Graduate Education of Scientists and Engineers” (1995);
- “Careers in Science and Engineering: A Student Planning Guide to Grad School and Beyond” (1996); and
- “Advisor, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering” (1997).

Next, the COSEPUP Committee focused on the needs of postdocs and wrote a 184-page report: “Enhancing the Postdoctoral Experience for Scientists and Engineers: A Guide for Postdoctoral Scholars, Advisors, Institutions, Funding Organizations, and Disciplinary Societies” (2000).

This comprehensive postdoc report is available in paperback and on-line at: <http://www4.NationalAcademies.org/pd/postdoc.nsf> This site also has a resource page with other links useful to postdocs.

Dr. Singer approached postdoc issues with the view that a postdoc position is a scientific apprenticeship for the purpose of professional growth, with specific responsibilities to the institution, supervisor and postdoc. She compared the status of astronomy and physics postdocs to other disciplines, showing data and charts from the COSEPUP study. The report has many specific recommendations (see Chapter 8), some directed toward postdocs and advisors, others toward institutions and funding agencies.

A panel discussion followed. The main concerns raised by astronomy postdocs at the session include:

- Benefits (health insurance is usually covered for the individual, but not always for families; maternity/family leave; retirement; moving expenses; life insurance; and disability insurance, especially since postdocs may be at risk of Carpal Tunnel and other repetitive motion injuries from their long hours at the computer);
- Professional development and mentoring (e.g., annual evaluations, including people beyond the immediate advisor);
- Contracts (or some mechanism for defining pay, benefits, job description, expectations, time for independent research, PI status, frequency of interaction with advisor);
- Defined status in their institution, with opportunities to present research results, ability to PI grants, respect of colleagues, and access to all institutional resources;

*Continued on the next page*

**EMPLOYMENT COMMITTEE***Continued from the previous page*

- Ability to expand skills, explore career options, have support for moving into “alternative” jobs, and use of university career services;
- Data collection on postdocs (How many? Where do they go after finishing the postdoc?);

The Employment Committee encourages the astronomy community to be aware of these concerns and needs of postdocs. Many of the topics raised during the panel discussion overlap with the recommendations of the COSEPUP report on postdocs.

The Employment Committee encourages action on these recommendations, and supports creation of:

- a recommended VITA/resume format, to make writing and reviewing job applications easier;
- guidelines on the responsibilities of employers and job seekers;
- a postdoc contract boilerplate; and
- information on benefits.

The Employment Committee (members are listed on the AAS website) welcomes more feedback on postdoc issues, and requests input toward the drafting of these documents.

**The First Grad Student Reception: A Big Hit**

The Committee on Employment, with the generous sponsorship of the **Ball Corporation**, held a graduate student reception at the Washington meeting. The room was overflowing with graduate students eager to network with the 20 or so employers who spoke briefly about career opportunities with their organizations.

The committee will hold another graduate student reception at the Albuquerque meeting. Registration will not be required and a larger room will be available. Employers who are interested in sponsoring or participating in the event should contact Kevin Marvel ([marvel@aes.org](mailto:marvel@aes.org)) to be sure they will have some time to speak to the assembled graduate students.

**Status of Women in Astronomy***Meg Urry, Chair, [meg.urry@yale.edu](mailto:meg.urry@yale.edu)***IUPAP Women in Physics Meeting Will Be Discussed in Albuquerque**

For the Albuquerque meeting, the CSWA plans a presentation on the 2002 International Union of Pure and Applied Physics meeting (IUPAP) on “Women in Physics.” Panelists will include the three astrophysicist members of the US team (Meg Urry from Yale U., Aparna Venkatesan from U. Colorado, and Jennifer Sokoloski from CfA). The panel’s report on the meeting will be followed by open discussion. A lunch-time slot has been requested.

**EDUCATION NEWS***Bruce Partridge, Education Officer, [bpartrid@haverford.edu](mailto:bpartrid@haverford.edu)***A New Journal/Newsletter Is Launched:*****Astronomy Education Review****Sidney Wolff, National Optical Astronomy Observatories and Andrew Fraknoi, Foothill College & ASP, Editors, [aer@noao.edu](mailto:aer@noao.edu)*

We are pleased to announce the founding of a new (and new kind of) journal for those engaged in astronomy and space science education. *Astronomy Education Review (AER)* will be an online journal and archival website, publishing:

- refereed papers on astronomy education research (and discussions of how to apply that research to classroom situations);
- short reports on innovative techniques, approaches, activities and materials;
- annotated lists of useful resources (printed, audio-visual, and electronic);
- brief announcement of opportunities (funding, cooperation, meetings, employment, etc.); and
- editorials, opinion pieces, critical reviews, and discussion.

The contents of *AER* will address all the arenas where astronomy education takes place: the K-12 classroom, undergraduate courses, graduate training, the Web, museums and planetaria (and other informal settings), print and broadcast media, and public outreach. At a time when the funding agencies are putting increased emphasis on education and outreach, our field very much needs a way to encourage and archive communication among those actively involved in this work. Astronomy is the only major science without such a publication. Since neither the existing research journals nor the popular astronomy magazines serve (or want to serve) this role, a new publication was clearly needed. While *AER* will be an online journal, all articles will be assigned to specific issues, and can be so cited in an author’s CV.

*AER* has a distinguished Board of Editors and a Council of Advisors that reaches across the spectrum of the astronomy education community. Research papers will be refereed, and all contributions will be vetted by a member of these two groups (as well as the Editors). The new journal has now been endorsed by the Council of the American Astronomical Society and the Board of the Astronomical Society of the Pacific. It is being started with the support of the National Optical Astronomy Observatories.

Information about the journal and sample articles can be seen at <http://aer.noao.edu>. The site has a more detailed explanation of how *AER* will work, what we see as its mission, and how to submit material. We welcome suggestions about the project and contributions to any of the sections of the journal/newsletter. Please address them to us at [aer@noao.edu](mailto:aer@noao.edu).

**Special Session “ ‘Astronomy 101:’ A Continuing Dialog” Discusses Systemic Reform***George Greenstein, Amherst College, [gsgreenstein@amherst.edu](mailto:gsgreenstein@amherst.edu)*

An education session at the Washington AAS meeting this past January addressed the practical difficulties involved in instituting systemic reform in our “Astro 101” courses. Both

educational research and everyday experience indicate that traditional methods of instruction are not particularly effective: nevertheless, because they reach great numbers of students, must be taught on a regular basis, and have been around for many years, it has proved extremely difficult to bring about significant changes in the way these courses are taught. The phrase “parallel parking an aircraft carrier” aptly sums up the difficulties.

We began our discussion with a presentation from a group which has managed to perform this remarkable feat. **Gary Gladding**, of the Physics Department at the University of Illinois at Urbana-Champaign, described a restructuring of their introductory offerings designed to meet the following goals:

- To “institutionalize” meaningful course content and effective pedagogical methods, so that good teaching is not dependent on a single inspired instructor;
- To incorporate new instructional techniques, based on education research, that emphasize conceptual understanding;
- To utilize state-of-the-art instructional media, including multimedia lecture presentations, World Wide Web-based interactive course materials, and laboratory computer data acquisition and analysis;
- To develop students’ teamwork skills and to promote students’ opportunities for collaborative learning;
- To develop a model for basic science teaching that will be “portable” to other departments.

(See <http://www.aps.org/units/fed/aug97/index.html-campbell> for a description of this effort.)

This effort was not easy. At Illinois eight faculty worked for a year to redesign the courses, the administration gave release time to several of them, and an Associate Head position was created to nurture the effort once the design phase was completed. Did this mean that reform was impossible without significant institutional resources? Gladding emphasized that this was not necessarily the case. *Somebody* had to have the resources to create instructional materials, but once created they could be shared. The Illinois group has given away PowerPoint lecture files, arranged for other institutions to use their web-based homework sets, etc.

We discussed the possibility of mounting such an effort in astronomy. And as the session in Washington proceeded, an alternative model was also considered. Here the appropriate mode was slow, incremental change over a longer period of time. A crucial problem that emerged in our conversation was that of ensuring that changes did not become “lost” when the person involved moves on to a new teaching assignment. How could individual faculty ensure that improvements they introduced become systemic? No final closure was reached on this all-important question.

There is abundant evidence that these issues are of great interest to many of us: approximately 60 people attended the session, and our discussions had showed no signs of slowing down by the end of the 2 ½ hour session.

## Goals for “Astronomy 101”

*Bruce Partridge, Haverford College, bpartrid@haverford.edu*

In May and June (see *AAS Newsletter* 106, August 2001), department leaders and education experts from 30 research universities met to discuss goals for introductory astronomy courses for non-majors (which we will lump under the general heading “Astro 101”). Meetings were held in Berkeley and at Harvard, sponsored by the AAS and supported by a grant from the NSF’s Division of Undergraduate Education. The meetings developed very similar lists of goals for introductory courses of this sort. The two lists were refined and presented at a session on 8 January at the Washington AAS Meeting. They are summarized below.

Those of us involved in the two meetings and in the 8 January session believe you will find them interesting, and that you may be surprised by their generality and lack of focus on specific content for “Astro 101.”

### Recommendations of Two National Workshops on “Astro 101”:

#### I. Goals: Content

*Students should gain:*

- 1) a cosmic perspective, a broad understanding of the nature and scope of the Universe, and where the Earth and Solar System fit in;
- 2) understanding of a limited number of crucial astronomical quantities together with some knowledge of physical laws;
- 3) the notion that physical laws and processes are universal ;
- 4) the notion that the world is knowable, and that we are coming to know it through observations, experiments and theory (the nature of progress in science);
- 5) exposure to the types, roles and degrees of uncertainty in science;
- 6) an understanding of the evolution of physical systems;
- 7) some knowledge of related subjects (e.g., gravity and spectra from physics) and a set of useful “tools” from related subjects like mathematics;
- 8) acquaintance with the history of astronomy and the evolution of scientific ideas (science as a cultural process);
- 9) familiarity with the night sky and how its appearance changes with time and position on Earth.

#### II. Goals: Skills, values and attitudes

- 1) Students should be exposed to:
  - the excitement of actually doing science
  - the evolution of scientific ideas (science as a cultural process).
- 2) Students should be exposed to how science progresses, and receive training in:
  - the roles of observations, experiments, theory and models
  - analyzing evidence and hypotheses
  - critical thinking (including appropriate skepticism)
  - hypothesis testing (experimental design and following the implications of a model)
  - quantitative reasoning (and the ability to make reasonable estimates)
  - the role of uncertainty and error in science
  - how to make and use spatial/geometrical models.

We urge those of you interested in “Astro 101” to talk over this list with your departmental colleagues, and to send comments and suggestion to me at [bpartrid@haverford.edu](mailto:bpartrid@haverford.edu). A much fuller report on the two national meetings on the goals of “Astro 101” is in preparation, and will be widely circulated.



## DIVISION NEWS

### Historical Astronomy

Barbara Welther, Chair, bwelther@cfa.harvard.edu,  
AAS Photos by Richard Dreiser, © 2002 American  
Astronomical Society, unless otherwise noted.

#### HAD Meets with AAS in DC

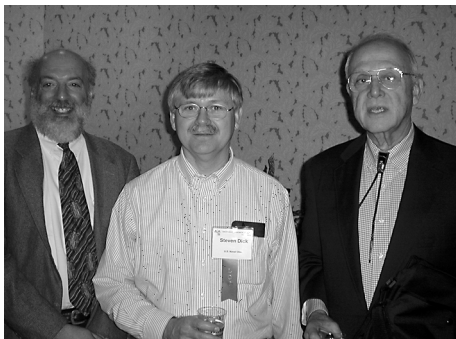
Last year in San Diego, the AIP Center for the History of Physics invited HAD to sponsor a joint reception with them at our meeting in Washington this year. The invitation spawned the theme for our Sunday afternoon session on 6 January in Washington, DC: "New Views of Historical Research in the 21st Century." In addition to informal talks given by **Spencer Weart**



Speaking at the Special Session "New Views of Historical Research in the 21st Century," were (l-to-r) **Craig Waff** (Encyclopedia Americana), **Ron Brashear** (Dibner Library, Smithsonian Inst. (SI)), **Brenda Corbin** (USNO), **Don Osterbrock** (UCO/Lick Obs.), **Marc Rothenberg** (Joseph Henry Papers, SI), and **Andre Heck** (U. Strasbourg).

gave an invited paper with a very good handout: "New Online Resources for the Historian of Astronomy." Contributed papers in the session were presented by **Rudi Paul Lindner**, **Andre Heck**, **Craig Waff**, **Don Clayton**, and **Guenther Eichhorn**. Later in the afternoon some of the "Friends of AIP" joined us for refreshments at the reception.

The highlight on Monday morning, 7 January, was the presentation of the Doggett Prize to the third recipient, **Donald Osterbrock**, Professor Emeritus at the University of California Santa Cruz and at Lick Observatory (see also page 17). The topic of his prize lecture was "The View from the Observatory:



HAD activist **Steve Dick** (USNO, center) was a member of the DC meeting LOC. Here he chats with **Rudi Paul Lindner** (U. Michigan, left) and HAD Chair-elect **Tom Williams**.

Photo by David DeVorkin

and **Joe Anderson** of the American Institute of Physics, there were eight papers by HAD members. **Ron Brashear** and **Marc Rothenberg** of the Smithsonian Institute each presented an invited paper about the Dibner Library and the SI Archives, respectively.

**Brenda Corbin** of the US Naval Observatory also

gave an invited paper with a very good handout: "New Online Resources for the Historian of Astronomy." Contributed papers in the session were presented by **Rudi Paul Lindner**, **Andre Heck**, **Craig Waff**, **Don Clayton**, and **Guenther Eichhorn**. Later in the afternoon some of the "Friends of AIP" joined us for refreshments at the reception.

The highlight on Monday morning, 7 January, was the presentation of the Doggett Prize to the third recipient, **Donald Osterbrock**, Professor Emeritus at the University of California Santa Cruz and at Lick Observatory (see also page 17). The topic of his prize lecture was "The View from the Observatory: History is Too Important to be Left to the Historians." Needless to say, Don's topic provoked much interesting discussion afterward. In the audience was the first recipient of the prize, **Curtis Wilson**; and on the screen in one of

Don's slides was pictured the second recipient, **Owen Gingerich**.

The second talk at Monday morning's session was presented by **Woody Sullivan**, who had worked in the mid 1990s with **LeRoy Doggett** to initiate and draft the rules for HAD's prize. His topic was

"The integration of early radio astronomy into astronomy." He made the interesting point that there was no need for the term "optical astronomy" until the term "radio astronomy" was coined after World War II. The final paper in this session on "The Development of American Astrophysics" was given by **Joe Tenn**, who spoke on his favorite topic, "The Bruce Medalists." Quite appropriately, he showed a transparency of his Webpage <http://phys-astro.sonoma.edu/BruceMedalists/Osterbrock/index.html> for **Don Osterbrock** who was the Bruce Medalist for 1991.

On Monday afternoon, we had a standing-room-only audience for our session entitled "Some Controversies in the History of Astronomy." **Ken Brecher** drew many astronomers as well as historians for his talk entitled "Should Astronomy Abolish Magnitudes?" Afterward, he fielded many questions and participated in the spirited discussion that he had provoked. Ken, by the way, was on the original HAD Council in 1980 and became the first Secretary-Treasurer of HAD in 1981. Other talks in that lively session were presented by **Vance Tiede**, **Peter Usher**, **Robert Fesen**, and **Ian Bartky**.

In addition to the HAD oral sessions, there was a display session entitled "New Views of Historical Topics," to which **Don Osterbrock**, **Tom English**, and **Irene Little-Marenin** contributed visual presentations. In all, there were 20 abstracts submitted this year for a large, if not the largest, number of papers given at a HAD meeting.

On Tuesday morning, 8 January, HAD members went to the Smithsonian to tour various sites of special interest there. **Ron Brashear** hosted HAD at the Dibner Library, where he showed off some "Landmark Works in the History of Astronomy." At the Smithsonian Institution (SI) Archives, **Marc Rothenberg** proved to the group that the



**Don Osterbrock** delivering his 2002 Doggett Prize lecture, "History is Too Important to be Left to the Historians," and is showing a slide of **Owen Gingerich**, his predecessor in the same award.

Photo by David DeVorkin



Some of the HAD "management team" at the business meeting included (l-to-r) Committee Member **Tom Hockey** (U. No. IA), Chair-elect **Tom Williams**, Chair **Barbara Welther** (SAO), Secretary **Ron Brashear** (SI), and Committee Member **Brenda Corbin** (USNO). Missing is Past Chair **Virginia Trimble** (UCI).

SI Archives is truly “A Great Place to Study Astronomy.” After lunch, **David DeVorkin** was on hand at the National Air and Space Museum to give HAD members a special tour of “Explore the Universe,” the new exhibit he masterminded. Members who missed the tour can see some highlights of the exhibit at <http://www.nasm.si.edu/galleries/gal111/universe>.

The HAD Committee met informally both Sunday and Monday evenings after the paper sessions to discuss policies and exchange ideas for future meetings. Notes from the HAD Business Meeting and the informal committee meetings will be published in the *HAD News*.

## High Energy Astrophysics

*Matthew Baring, Secretary, headsec@as.org*

### Division Sessions at the DC Meeting:

#### The Business of Elections

The HEAD Election was concluded on 31 December 2001, and the results announced at the HEAD Business meeting on 9 January during the AAS Winter Meeting in Washington, DC. **Roger Blandford** was elected to the office of Vice-Chair, **Matthew Baring** was elected unopposed to the office of Secretary/Treasurer, and the three newly elected members of the Executive Committee are **Omer Blaes**, **Brenda Dingus** and **Ramesh Narayan**.

#### 2002 Rossi Prize

Also at the HEAD Business meeting outgoing HEAD Chair, Alice Harding, announced that the 2002 Bruno Rossi prize is being awarded to **Leon Van Speybroeck** for his singular contribution to high energy astrophysics leading to the exquisite image quality produced by the Chandra X-ray telescope. The June AAS *Newsletter* will contain more information about this award.

#### HEAD Seeks New Press Officer

Press Officer **Lynn Cominsky** has announced that she will be resigning after the Albuquerque meeting, citing a considerable increase in responsibilities. We thank Lynn for her tireless efforts and enthusiasm as Press Officer over the last 5+ years, and wish her the very best in her future endeavors. A search for her successor is underway, with the goal to have a new HEAD Press Officer in place before the Albuquerque meeting. Please send suggestions as soon as possible to Josh Grindlay, [josh@head-cfa.harvard.edu](mailto:josh@head-cfa.harvard.edu), 617-495-7204, FAX: 617-495-7356.

#### Division to Meet with APS in Albuquerque

The next HEAD Division meeting is a joint meeting with the APS Division of Astrophysics (DAP) **20-23 April 2002**, in Albuquerque, NM. The meeting will include invited and contributed talks, poster sessions, and evening workshops like recent HEAD meetings, as well as the opportunity to attend plenary and other sessions of the Spring APS Meeting. The APS will be taking care of registration, accommodation and abstract submission. Regular abstract submission was 11 January, but abstracts for late poster papers may still be submitted until **8 March** and the housing deadline is **20 March**. For complete details, check <http://www.aps.org/meet/APR02/>, the APS April Meeting Website.

*DIVISION NEWS Continued on page 14*

## DC Meeting Makes Its Mark



*Apollo 11 astronaut Buzz Aldrin was flanked by past and present AAS Presidents Andrea Dupree (left) and Anneila Sargent at the banquet.*

*AAS Photo by Richard Dreiser, © 2002 American Astronomical Society*

The 199<sup>th</sup> AAS meeting in Washington, DC, was important not only to scientists but to the larger community. It made headlines on a daily basis and on 10 January, *Morning Edition* host **Bob Edwards** opened his National Public Radio program by listing the wind-up of the meeting among the major events of the day. Presidential Science Advisor **John H. Marburger III** addressed the attendees (see WASHINGTON NEWS column, page 24), took their questions, and adjourned to the press area, where he was quizzed by reporters on topics ranging from stem cell research and fusion energy to the future of the International Space Station. Daily accounts of the meeting appeared in the media, and *The New York Times* ran a summary article on 15 January that began “With the whole cosmos as its agenda, the [AAS meeting] was a sounding board for scientists with new findings and ideas about nearly everything...” Ten days after the meeting, another *Times* contributor reminded readers that “Another burst of revelations comes every June” in what he referred to as our “summer meeting.” Apollo 11 moon-walking astronaut **Buzz Aldrin** was a surprise guest of honor at our banquet (photo above); he’s leading a study of the future of the USA’s space launch infrastructure for the Commission on the Future of the United States Aerospace Industry.

*For more meeting highlights, see page 10*

## ALBUQUERQUE MEETING NOTES:

*Abstracts* are due 9:00pm EST on **27 March 2002**. For help, contact [abs-help@as.org](mailto:abs-help@as.org), but don’t be late.

*Purchase Orders* are **no longer being accepted** for payment of AAS meeting registration fees. Credit cards, checks or money orders may be used. If excluding purchase orders will cause extreme hardship, please contact Zuzi Hanova (202-328-2010, [reg-help@as.org](mailto:reg-help@as.org)). It is not our intention to keep any member from attending AAS meetings.





Vera Rubin (Carnegie Institution of Washington) gave the opening invited talk of the meeting. The Institution held a conference in her honor immediately after the meeting.

## RECORD NUMBERS CONVENE IN DC

The 199<sup>th</sup> AAS meeting, 6-10 January in Washington, DC, set a new record for attendance with 2303 registered participants on hand. The meeting was the scene for reports of imaging discoveries using adaptive optics on Gemini North and the Keck Telescope, for the release of the first images from the new Sub-Millimeter Array on Mauna Kea, and for the announcement of many exciting findings from FUSE, Chandra, and other space missions. The Russell, Pierce, Rossi, and Doggett Prize Lectures were presented (photos,



Observers concentrating on high-resolution imagery included (l-to-r) Peter Garnavich (Notre Dame U.), who observed an extragalactic light echo, and John Monnier (Smithsonian Astrophysical Obs.) and William Danchi (NASA GSFC), who made Keck aperture-masked snapshots of time-dependent dust nebula formation in a colliding winds binary.



Ray Jayawardhana (left, U. California, Berkeley) and Michael Liu (right, University of Hawaii) announced discoveries in the extrasolar planetary systems and brown dwarfs field that were enabled by adaptive optics on Gemini North and at Keck Observatory. Alan Boss (center, Carnegie Institution of Washington), commented on the significance of the findings.



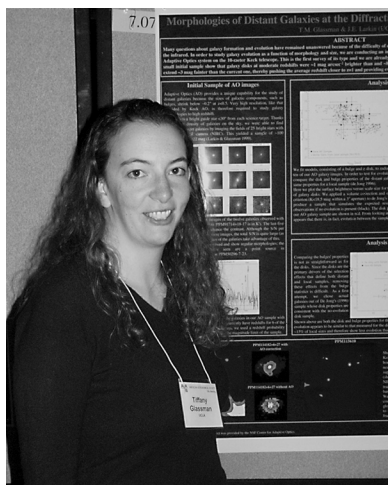
Youichi Ohyama (Subaru Telescope) made a spectroscopic study of a gravitational lens with implications for the cosmological constant.



Edward Murphy (left, U. Virginia) described FUSE observations of a "galactic fountain" in an edge-on spiral galaxy. Brian McNamara (right, Ohio U.) found "ghost cavities" in Chandra images of galaxy clusters.



Compilers of a far-UV spectral atlas of early-type stars in the Magellanic Clouds included (l-to-r) John Hutchings (Herzberg Institute of Astrophysics), Luciana Bianchi (Johns Hopkins U.), and Alexander Fullerton (U. Victoria).



Tiffany Glassman (UCLA) researched galaxies at the diffraction limit of the Keck Telescope. The project yields galaxy morphologies at redshift about 0.5.



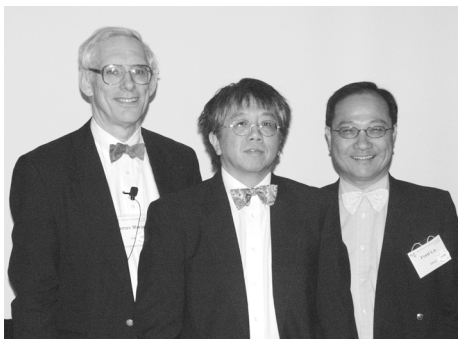
Heidi Newberg (Rensselaer Polytechnic Institute) identified star streams in the galactic halo with SDSS data.



Bruce Elmegreen (left, IBM), Olivia Billett (center, Yale U.), and Deidre Hunter (Lowell Obs.) explored compact star clusters in nearby irregular galaxies.



page 17). The Committee on the Status of Minorities in Astronomy sponsored a special session and entertained meeting-goers at a reception. An NSF press reception celebrated the impending dedication of Gemini South. Additional highlights of the meeting are shown on pages 9, 17, and 24. Each picture is an “AAS Photo by Richard Dreiser, © 2002 American Astronomical Society.”



Presenting the first images from the new Sub-Millimeter Array on Mauna Kea were (l-to-r) James Moran and Paul Ho (both, Smithsonian Astrophysical Obs.) and K.-Y. Fred Lo (Institute of Astronomy and Astrophysics, Taiwan).



“Policy Insiders” who spoke in a special session were (l-to-r) Brant Sponberg (Office of Management and Budget), Albert Teich (AAS), and Robert Palmer (Democratic Staff Director, Committee on Science, US House of Representatives). They are shown here with session chair Sidney Wolff (NOAO; at right in front row) and organizer Kevin Marvel (AAS Exec. Office).



Attendees at a reception of the Committee on the Status of Minorities in Astronomy included (l-to-r) President-Elect Catherine Pilachowski, Beth Brown (NASA Goddard), and Committee Chair Charles Woodward (U. Minnesota).



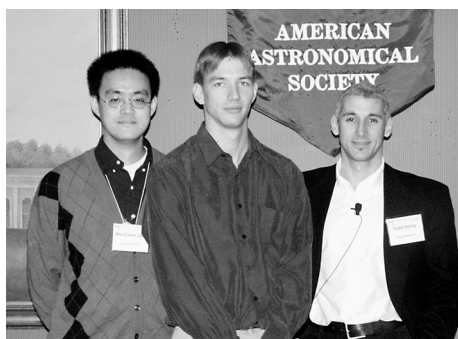
Researchers reporting on objects and structure in the Milky Way included (l-to-r) Michael Skrutskie (U. Virginia), David Helfand (Columbia U.), and Q. Daniel Wang (U. Massachusetts).



Mark Krco (Colgate U.) used the Magellanic Stream to probe the halo.



Una Hwang (NASA Goddard) presented an invited talk on Chandra observations of supernova remnants.



Wei-Chun Jao, John Subasavage, and Todd Henry (all, Georgia State U.) reported on a major program to survey the nearest stars.



Claire Chandler (NRAO) studied star formation in Lynds dark clouds.



Andrea Lommen (U. California, Berkeley) derived new limits on the gravitational wave background from the Pulsar Timing Array.

Prizes Presented at the Meeting on page 17

## CALENDAR

Listed below are meetings or other events that have come to our attention (new or revised listings noted with an asterisk). 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 [lscholz@aas.org](mailto:lscholz@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://cadwww.hia.nrc.ca/meetings>.

### AAS and AAS Division Meetings

#### High Energy Astrophysics Division

(with Division of Astrophysics of APS)

20–23 April 2002 — Albuquerque, NM

Contact: Alice Harding ([harding@twinkie.gsfc.nasa.gov](mailto:harding@twinkie.gsfc.nasa.gov))

#### Division on Dynamical Astronomy

21–24 April 2002 — Portland, OR

Contact: Alan Harris ([awharris@lithos.jpl.nasa.gov](mailto:awharris@lithos.jpl.nasa.gov))

#### 200<sup>th</sup> Meeting of the AAS

2–6 June 2002 — Albuquerque, NM

Contact: Harjit Ahluwalia ([hsa@unm.edu](mailto:hsa@unm.edu))

#### Solar Physics Division (with AAS)

2–6 June 2002 — Albuquerque, NM

Contact: John Leibacher ([leib@noao.edu](mailto:leib@noao.edu))

#### \*Division for Planetary Sciences

6–11 October 2002 — Ann Arbor, MI

Contact: J. Hunter Waite ([hunter@umich.edu](mailto:hunter@umich.edu))

#### 201<sup>st</sup> Meeting of the AAS

5–9 January 2003 — Seattle, WA

Contact: AAS Executive Office ([diana@aas.org](mailto:diana@aas.org))

### Other Events

#### \*AAS SECOND CENTURY LECTURE

26 March 2002 — Princeton, NJ

“Planets and the Prospects for Life in the Universe”

Prof. Geoff Marcy (UC Berkeley)

#### \*Astrobiology Science Conference 2002

7–11 April 2002 — Moffett Field, CA

Contact: [abscicon2@mail.arc.nasa.gov](mailto:abscicon2@mail.arc.nasa.gov)

<http://web99.arc.nasa.gov/absccon2>

#### Galaxy Evolution: Theory and Observations

8–12 April 2002 — Cozumel, Mexico

Contact: Vladimir Avila-Reese ([galaxies@astroscu.unam.mx](mailto:galaxies@astroscu.unam.mx))

<http://www.astroscu.unam.mx/galaxies>

#### \*Debris Disks and Planetary Formation: Symposium in Memory of Fred Gillett

11–13 April 2002 — Tucson, AZ

Contact: Larry Caroff ([lcaroff@attbi.com](mailto:lcaroff@attbi.com))

<http://www.noao.edu/meetings/gillette>

#### \*AAS SECOND CENTURY LECTURE

16 (TBD) April 2002 — Alberta, Canada

“Extrasolar Planets: First Reconnaissance”

Dr. Paul Butler, Dept. of Terrestrial Magnetism, CIW

#### Matter and Energy in Clusters of Galaxies

23–24 April 2002 — Chung-Li, Taiwan

Contact: Stuart Bowyer ([bowyer@ssl.berkeley.edu](mailto:bowyer@ssl.berkeley.edu))

<http://www.astro.ncu.edu.tw/clusters>

#### 5<sup>th</sup> A. Friedmann Int'l. Seminar on Gravitation and Cosmology

24–30 April 2002 — Joao Pessoa, Brazil

Contact: J. B. da Fonseca ([jfonseca@fisica.ufpb.br](mailto:jfonseca@fisica.ufpb.br))

<http://www.fisica.ufpb.br/~jfonseca/friedmann>

#### \*NASA Laboratory Astrophysics Workshop

1–3 May 2002 — Moffett Field, CA

Contact: Farid Salama ([fsalama@mail.arc.nasa.gov](mailto:fsalama@mail.arc.nasa.gov))

<http://www.astrochemistry.org/nasalaw.html>

#### \*Georgia Regional Astronomy Meeting

3–4 May 2002 — Decatur, GA

Contact: Chris De Pree ([cdepree@agnesscott.edu](mailto:cdepree@agnesscott.edu))

#### \*Astrophysics of Life

6–9 May 2002 — Baltimore, MD

Contact: Quindairian Gryce ([gryce@stsci.edu](mailto:gryce@stsci.edu))

<http://ntweb.stsci.edu/sd/astrophysicsoflife/index.html>

#### 1<sup>st</sup> Potsdam Thinkshop: “Sunspots and Starspots”

6–10 May 2002 — Potsdam, Germany

Contact: Klauss Strassmeier ([kstrassmeier@aip.de](mailto:kstrassmeier@aip.de))

<http://www.aip.de/thinkshop/>

#### \*11<sup>th</sup> Annual Northeast Astronomy Forum

18–19 May 2002 — Suffern, NY

<http://www.rocklandastronomy.com/neaf.htm>

#### \*Gamma Ray Bursts: The Brightest Explosions in the Universe

20–23 May 2002 — Cambridge, MA

Contact: Karen Lombardi ([klombardi@cfa.harvard.edu](mailto:klombardi@cfa.harvard.edu))

<http://cfa-www.harvard.edu/grbconf>

#### IAU Symposium. 211: “Brown Dwarfs”

20–24 May 2002 — Big Island, HI

Contact: Eduardo Martin ([ege@ifa.hawaii.edu](mailto:ege@ifa.hawaii.edu))

<http://www.ifa.hawaii.edu/iau211>

#### \*Green Bank Workshop on Solar Radiophysics with the

Frequency Agile Solar Radiotelescope

23–25 May 2002 — Green Bank, WV

Contact: Dale Gary ([gary@adm.njit.edu](mailto:gary@adm.njit.edu))

<http://www.ovsa.njit.edu/fasr/workshop01.html>

#### Réunion annuelle de la Société canadienne d’histoire et

philosophie des sciences

26–28 May 2002 — Toronto, Canada

<http://www.hssfc.ca>

#### \*Origins 2002: The Heavy Element Trail from Galaxies to

Habitable Worlds

26–29 May 2002 — Jackson, WY

Contact: Eric Smith ([Eric.P.Smith@hq.nasa.gov](mailto:Eric.P.Smith@hq.nasa.gov))

<http://www.westoverconferences.com/origins>

#### \*International School of Cosmic Ray Astrophysics: “Relativistic Astrophysics and Cosmology”

2–14 June 2002 — Erice, Italy

Contact: Maurice M. Shapiro ([mmshapiro@mailaps.org](mailto:mmshapiro@mailaps.org))

<http://phacts.phys.lsu.edu/IS CRA>

#### \*AAS SECOND CENTURY LECTURE

3 June 2002 — Albuquerque, NM (during AAS Meeting)

“Ripples in the Fabric of Space and Time: Exploring the Universe with Gravitational Waves”

Prof. Kip Thorne, Caltech



- \*Summer Sch. in Spectrum Management for Radio Astronomy  
9–14 June 2002 — Green Bank, WV  
Contact: Darrel Emerson (spectman@nrao.edu)  
<http://www.iucaf.org/sschool>
- Festschrift for R.F. Garrison on his 66th Birthday, “Probing the Personalities of Stars and Galaxies”  
10–11 June 2002 — Tucson, AZ  
Contact: Richard O. Gray (grayro@appstate.edu)  
<http://stellar.phys.appstate.edu/garrison>
- IAU Colloq. 188: “Magnetic Coupling of the Solar Atmosphere”  
11–15 June 2002 — Santorini (Cyclades), Greece  
Contact: Georgia Tsiropoula (georgia@space.noa.gr)  
<http://www.space.noa.gr>
- IAU Symposium. 210, “Modeling of Stellar Atmospheres”  
17–21 June 2002 — Uppsala, Sweden  
Contact: Nikolai Piskunov (piskunov@astro.uu.se)  
<http://www.astro.uu.se/iau210>
- Scientific Frontiers in Research on Extrasolar Planets  
18–21 June 2002 — Washington, DC  
Contact: Drake Deming (exoplanet@lepvox.gsfc.nasa.gov)  
<http://lep694.gsfc.nasa.gov/code693/planetsconf.html>
- \*Eighth Synthesis Imaging Summer School  
18–25 June 2002 — Socorro, NM  
Contact: Greg Taylor (gtaylor@nrao.edu)  
<http://www.aoc.nrao.edu/~gtaylor/synth02/synth02.html>
- Quatrième congrès du Groupe international d’Histoire de la philosophie  
21–23 June 2002 — Montreal, Canada  
Contact: <http://scistud.umkc.edu/hopos>
- IAU Symp. 212, “A Massive Star Odyssey, from Main Sequence to Supernova”  
24–28 June 2002 — Lanzarote, Canary Islands, Spain  
Contact: Karel van der Hucht (K.A.van.der.Hucht@SRON.nl)
- 2002 Michelson Interferometry Summer School  
24–28 June 2002 — Cambridge, MA  
Contact: Peter Lawson (lawson@huey.jpl.nasa.gov)  
<http://sim.jpl.nasa.gov/michelson/iss.html>
- Astrophysical Disks  
24 June–15 July 2002 — Aspen, CO  
Contact: J. Robert Buchler (buchler@phys.ufl.edu)  
<http://andy.bu.edu/aspen>
- \*European VLBI Network Symp. 2002: “New Developments in VLBI Science and Technology”  
25–28 June 2002 — Bonn, Germany  
Contact: Eduardo Ros (evn2002@mpifr-bonn.mpg.de)  
<http://www.mpifr-bonn.mpg.de/div/vlbi/eve2002>
- \*AAS SECOND CENTURY LECTURE**  
29 June 2002 — Topeka, KS  
“Extrasolar Planets: First Reconnaissance” by Paul Butler  
Contact: Brenda Culbertson (zbculbe@washburn.edu)
- IAU: 8<sup>th</sup> Asia-Pacific Regional Meeting  
2–5 July 2002 — Tokyo, Japan  
Contact: Satoru Ikeuchi (ikeuchi@a.phys.nagoya-u.ac.jp)  
<http://www.astro.isas.ac.jp/conference/aprm2002>
- LISA IV: Library and Information Services in Astronomy  
2–5 July 2002 — Prague, Czech Republic  
Contact: Marek Wolf (lisa4@carolina.cz)  
<http://lisa4.cuni.cz>
- IAU Symp. 213: “Bioastronomy 2002: Life among the Stars”  
8–12 July 2002 — Great Barrier Reef, Australia  
Contact: Ray P. Norris (Ray.Norris@atnf.csiro.au)
- Fourth eta Carinae Workshop: Reading the Legend  
11–13 July 2002 — Mount Ranier Lodge, WA  
Contact: Bruce Balick (balick@astro.washington.edu)  
[http://www.astro.washington.edu/balick/eta\\_conf](http://www.astro.washington.edu/balick/eta_conf)
- 2002 Pacific Rim Conference on Stellar Astrophysics  
11–17 July 2002 — Xi’an, China  
Contact: Zhigang Li (lizg@ms.sxso.ac.cn)  
<http://bohr.physics.hku.hk/~xian2002>
- \*International Congress on Plasma Physics, ICPP 2002  
15–19 July 2002 — Sydney, Australia  
Contact: Iver Cairns (cairns@physics.usyd.edu.au)  
<http://www.ise.canberra.edu.au/ICPP2002>
- \*International Conference of Theoretical Physics  
22–27 July 2002 — Paris, France  
Contact: th2002@spht.saclay.cea.fr  
<http://www-spht.cea.fr/th2002>
- Active Galactic Nuclei: From Central Engine to Host Galaxy  
23–27 July 2002 — Paris, France  
Contact: Suzy Collin (suzy.collin@obspm.fr)  
<http://www.obspm.fr/savoirs/seminaire/coll02/AGN02>
- \*IAU Symp. 214: “High Energy Processes and Phenomena in Astrophysics”  
5–10 August 2002 — Suzhou, China  
Contact: Virginia Trimble (vtrimble@astro.umd.edu)  
<http://cosmos.colorado.edu/IAU214>
- \*Fundamentals of String Theory  
5 August–8 September 2002 — Aspen, CO  
Contact: Steven Gubser (ssgubser@theory.caltech.edu)  
<http://andy.bu.edu/aspen/workshops02.html#string>
- \*The IGM/Galaxy Connection: The Baryon Distribution at  $z=0$   
8–10 August 2002 — Boulder, CO  
Contact: Jessica Rosenberg (jrosenbe@origins.colorado.edu)  
<http://origins.colorado.edu/igm>
- IAU-UNESCO 26<sup>th</sup> International School for Young Astronomers  
12–30 August 2002 — San Juan, Argentina  
Contact: Nidia Morrell (nidia@fcaglp.edu.ar)  
<http://lilen.fcaglp.unlp.edu.ar/isya>
- \*Chemistry as a Diagnostic of Star Formation  
21–23 August 2002 — Waterloo, ONT, Canada  
Contact: Michael Fich (fich@astro.uwaterloo.ca)  
<http://astro.uwaterloo.ca/sfchem2002>
- \*Astronomical Telescopes and Instrumentation—SPIE, USA  
22–28 August 2002 — Waikoloa, HI  
Contact: spie@spie.org  
<http://spie.org/Conferences/calls/02/as>
- 11<sup>th</sup> UN/ESA Workshop on Basic Space Science  
9–13 September 2002 — Cordoba, Argentina  
Contact: Hans Haubold (haubold@kph.tuwien.ac.at)  
<http://www.seas.columbia.edu/~ah297/un-esa>
- \*Winds, Bubbles and Explosions: A Conference to Honor John Dyson  
9–13 September 2002 — Patzcuaro, Michoacan, Mexico  
Contact: Jane Arthur (bubbles@astro.unam.mx)  
<http://www.astro.unam.mx/~bubbles>



**DIVISION NEWS***Continued from page 9***Solar Physics***Steve Walton, Secretary, secretary@spd.aas.org*

*The text below is in the nature of a 'letter to the SPD editor' from Peter Foukal and Henk Spruit, the co-organizers of the special session on solar irradiance variability at the AGU/SPD meeting in May 2001. The description of the science in that session which led off the coverage of the meeting in the August 2001 AAS Newsletter was misleading on several key points, and also slighted one of the invited talks since I was unable to attend it. My apologies to the organizers and attendees for my unintended misrepresentation.*

A special session on "Physical Mechanisms of Solar Luminosity Variation" was organized by **Peter Foukal** and **Henk Spruit**. In his introductory talk, Spruit pointed out that the radiative relaxation time of convective layers near the photosphere is much longer than their calculated thermal diffusive time scale. Consequently, the decreased radiation from spots (or increased brightness of faculae) is stored in the convective zone (or derived from it), not quickly compensated by heating or cooling respectively, of the surrounding photosphere. He drew an interesting analogy to a space craft, which also equilibrates internally much quicker than it can achieve radiative equilibrium with deep space. This explains physically why the observed irradiance variation is so well represented by empirical models based on the changing areas of spots, faculae and network.

The irradiance measurements and their comparison with empirical models were discussed in the next review talk by **Judith Lean**. She showed how most of the variance in the space borne radiometry since 1978 can be accounted for by the changing areas of spots, faculae and network over the last two solar cycles. Nevertheless, sufficient uncertainty remains in the photometric contrast of these structures that a contribution from other mechanisms cannot be ruled out, and she mentioned some initiatives to investigate possible secular variations on longer time scales.

In his review, **Peter Foukal** tested various suggested luminosity variation mechanisms against results from analyses of radiometric data and photometric observations. The solar irradiance variation observed so far seems to be caused by a combination of the solar magnetic field's ability to produce localized thermal perturbations of both positive and negative sign (faculae and spots), and the photosphere's very slow radiative response, which prevents the thermal perturbation from being cancelled without effect on luminosity. Together, these two mechanisms seem to answer the classic question: Why does solar luminosity vary? — at least on the rotational and 11-yr time scales so far observed.

**Phil Goode** reviewed the status of solar diameter measurements as possible diagnostics of luminosity variation. He pointed out that heliometric (direct imaging) measurements are now contradicted by helioseismic results, and discussed the difficulties in interpreting the data as a diagnostic of irradiance variations.

In her invited talk, **Yvonne Unruh** described how variation in solar spectral irradiance can be modelled from semi-empirical model atmospheres of spots, faculae and network. She showed

that good agreement can be achieved in the photospheric radiations, although the UV radiations originating at higher levels pose a greater challenge. She also pointed out that the 11-yr modulation of irradiance, observed in chromospheric as well as photospheric radiation, cannot be explained by a small variation of photospheric temperature, and most likely arises from a variation in the network area.

**Richard Radick** reviewed the constraints posed by stellar photometry. He showed that cyclical brightening in phase with increasing activity level is seen in stars most similar to the sun, while younger stars tend to exhibit a variation of opposite phase. This can be understood if spots dominate over faculae on stars of high activity level. He stressed the difficulty of finding true solar analogues for comparison with solar irradiance behaviour.

Contributed papers were presented by **Gary Chapman** on sunspot statistics, by **Jeff Kuhn** on alternative modes of irradiance variation, and (individually) by **J. Morrill**, **P. Crane**, **J. Cook**, and **J. Newmark**, on various aspects of UV and EUV irradiance variability, as measured from spacecraft and with ground-based proxies.

**Priest Is 2002 Hale Prize Winner**

It is a great pleasure to start off the new year by announcing that the Hale Prize Committee — comprised of Terry Forbes, Leon Golub, Jack Harvey, Shadia Habbal [chair], and Barry LaBonte — has nominated **Eric Priest**, of St. Andrew's University, Scotland, to receive the 2002 Hale Prize, for his seminal contributions to investigations of the role of the magnetic field in solar activity, and for his tireless advocacy of solar physics in all corners of the world. Eric's Hale Prize lecture will be given at the joint meeting of the SPD and the AAS this June in Albuquerque. Be there!

**DIRECTORY CORRIGENDUM**

Sharp eyes have spotted the following errors and omissions in the 2002 AAS *Membership Directory*:

- Page 2: WHOM TO CONTACT? Add to the staff list **Frances Rotenberry**, Financial Assistant, frances@aes.org;
- Page 13: PRIZE RECIPIENTS, The Pierce Prize Winners for the years 1991-1992 and 1993 were misplaced on to the end of the Warner Prize list;
- Page 17: DIVISIONS, Historical Astronomy Division: Don Osterbrock is the 2002 (*not 2001*) Doggett Prize winner;
- **MEMBER INFORMATION:**  
Adam Burgasser's email address should read: adam@astro.ucla.edu  
Robert Koch's email should read: rhkoch@earthlink.net
- **INSTITUTIONAL LISTINGS:**  
California at Los Angeles, University of, Division of Astronomy and Astrophysics, 405 Hilgard Ave., Los Angeles, CA 90095-1547, Tel: 310-825-4435, Fax: 310-206-2096, liles@astro.ucla.edu, http://www.astro.ucla.edu;  
Lumumbashi Univ. should be listed under Congo, Democratic People's Republic of (formerly Zaire), not Zambia.

**CALENDAR***Continued from page 13***CNO in the Universe**

10–14 September 2002 — Saint-Luc (Valais), Switzerland  
 Contact: Daniel Schaerer (schaerer@ast.obs-mip.fr)  
<http://obswww.unige.ch/cno>

**Celestial Mechanics 2002**

10–14 September 2002 — St. Petersburg, Russian Federation  
 Contact: N. V. Shuigina (nvf@quasar.ipa.nw.ru)

**IAU Colloquium 189: “Astrophysical Tides: The Effects in the Solar and Exoplanetary Systems”**

16–20 September 2002 — Nanjing, China  
 Contact: Yuehua Ma (yhma@mail.pmo.ac.cn)  
<http://www.pmo.ac.cn/web/IAU189/1st-announcement.html>

**\*COSMO-02: International Workshop on Particle Physics and the Early Universe**

18–21 September 2002 — Chicago, IL  
 Contact: cosmo02@pancake.uchicago.edu  
<http://pancake.uchicago.edu/~cosmo02>

**\*International Meteor Conference 2002**

26–29 September 2002 — Frombork, Poland  
 Contact: Ina Rendtel (treasurer@imo.net)  
<http://www.imo.net/news/imc.html>

**\*CODATA Conf.: Frontiers of Scientific and Technical Data**

29 September–3 October 2002 — Montreal, Canada  
<http://www.codata.org>

**\*Huntsville Wrkshp. 2002: “Astrophysical Particle Acceleration in Geospace and Beyond”**

6–10 October 2002 — Chattanooga, TN  
 Contact: Rob Preece (Rob.Preece@nssdc.nasa.gov)

**\*13th Annual October Astrophysics Conference in Maryland: The Emergence of Cosmic Structure**

7–9 October 2002 — College Park, MD  
 Contact: Susan Lehr (october@astro.umd.edu)  
<http://www.astro.umd.edu/october>

**\*Outer Edges of Dwarf Irregular Galaxies: Stars and Gas**

10–11 October 2002 — Flagstaff, AZ  
 Contact: Deidre Hunter (lowell02@lowell.edu)  
<http://www.lowell.edu/Workshops/Lowell02>

**\*Radio Astronomy at the Fringe**

10–12 October 2002 — Green Bank, WV  
 Contact: J. Richard Fisher (rfisher@nrao.edu)

**34th COSPAR Scientific Assembly/World Space Congress**

10–19 October 2002 — Houston, TX  
 Contact: cospar@copernicus.org  
<http://www.copernicus.org/COSPAR/COSPAR.html>

**\*Astronomical Data Analysis Software and Systems (ADASS XII)**

13–16 October 2002 — Baltimore, MD  
 Contact: Perry Greenfield (adass@stsci.edu)  
<http://www.adass2002.stsci.edu>

**\*Carnegie Obs. Centennial Symp. I: “Coevolution of Black Holes and Galaxies”**

20–25 October 2002 — Pasadena, CA  
 Contact: Luis Ho (lho@ociw.edu)  
<http://www.ociw.edu/ociw/symposia/symposium1>

**\*International Dark Sky Association National Fall Meeting**

25–26 October 2002 — Cambridge, MA  
 Contact: Dan Green (green@cfa.harvard.edu)  
<http://cfa-www.harvard.edu/cfa/ps/nelpag/meetings.html>

**\*Challenges to the Standard Paradigm: Fundamental Physics and Cosmology**

1–3 November 2002 — Irvine, CA  
 Contact: Miriam Heston (mheston@nas.edu)

**\*Galactic Center Workshop 2002**

3–8 November 2002 — Kailua-Kona, HI  
 Contact: Thomas R. Geballe (tgeballe@gemini.edu)  
[http://www.gemini.edu/science/gc\\_conf](http://www.gemini.edu/science/gc_conf)

**IAU Symposium. 215: “Stellar Rotation”**

11–15 November 2002 — Cancun, Mexico  
 Contact: André Maeder (andre.maeder@obs.unige.ch)  
<http://www.astro.ugto.mx/~eenens/iau215>

**\*Carnegie Obs. Centennial Symp. II: “Measuring and Modeling the Universe”**

17–22 November 2002 — Pasadena, CA  
 Contact: Wendy Freedman (wfreedman@ociw.edu)  
<http://www.ociw.edu/ociw/symposia/symposium2>

**\*IAU Coll. 190: “Magnetic Cataclysmic Variables”**

8–13 December 2002 — Cape Town, South Africa  
 Contact: Sonja Vriellmann (mcv@penguin.ast.uct.ac.za)  
<http://mensa.ast.uct.ac.za/mcv.html>

**\*XXI<sup>st</sup> Texas Symposium on Relativistic Astrophysics**

9–13 December 2002 — Florence, Italy  
 Contact: texas\_florence@arcetri.astro.it  
<http://www.arcetri.astro.it/~texaflor>

**\*Neutrinos: Data Cosmos and Planck Scale**

15 January–15 May 2003 — Santa Barbara, CA  
 Contact: David Gross (gross@itp.ucsb.edu)  
<http://www.itp.ucsb.edu>

**\*Carnegie Obs. Centennial Symp. III: “Clusters of Galaxies: Probes of Cosmological Structure and Galaxy Evolution”**

26–31 January 2003 — Pasadena, CA  
 Contact: John Mulchaey (jmulchaey@ociw.edu)  
<http://www.ociw.edu/ociw/symposia/symposium3>

**\*Carnegie Obs. Centennial Symp. IV: “Origin and Evolution of the Elements”**

16–21 February 2003 — Pasadena, CA  
 Contact: Andrew McWilliam (amcwilliam@ociw.edu)  
<http://www.ociw.edu/ociw/symposia/symposium4>

**\*33rd Saas-Fee Course: “Gravitational Lensing: Strong, Weak and Micro”**

6–11 April 2003 — Grimentz, Switzerland  
 Contact: Georges Meylan (gmeylan@stsci.edu)

**Sixth Biennial History of Astronomy Meeting**

19–22 June 2003 — Notre Dame, IN  
 Contact: Matthew F. Dowd (matthew.f.dowd.11@nd.edu)

**XXV<sup>th</sup> International Astronomical Union General Assembly**

13–26 July 2003 — Sydney, Australia  
 Contact: IAU Secretariat (iau@iap.fr)



## NEWS FROM NASA

*Guenter Riegler, Director for Science, Office of Space Science, NASA Headquarters*

### New Features in the OSS FY2003 Budget Request

- The “Outer Planets” missions program will be replaced by a new program called “New Frontiers.” This program will provide frequent access to space for mid-sized planetary missions that will perform high-quality scientific investigations and have a lifecycle cost up to \$650 million. New Frontiers will pursue a clear set of goals and science priorities, and will select missions through a fully open and competitive process similar to the highly successful “Discovery” program.
- A new Nuclear Electric Propulsion program will enable significant reductions in the cruise time for spacecraft to reach distant targets and the use of smaller launch vehicles, thereby reducing total mission costs. A new Nuclear Power program offers the potential to dramatically increase the potential scientific return of many future missions. For example, within the Mars Exploration program, nuclear power has been incorporated as an element of the 2009 Mars Smart Lander/Mobile Laboratory mission, and will greatly extend the duration of surface operations.
- The FY 2003 budget request provides continued support for the Explorer, Discovery, New Millennium, and technology programs. Funding for all research programs will be increased by 3% – the second consecutive inflation-equivalent increase in two years.

For a more complete discussion of the President’s Budget Request for NASA see “Astronomy in the 2003 Federal Budget” at <http://www.aas.org/policy/index.htm>.

### Reorganization of NASA’s Office of Space Science

The Office of Space Science (OSS) at NASA Headquarters manages all of NASA’s astrophysics, solar system exploration, and sun-earth connection programs, ranging from supporting research and technology to the development of space missions and their data analysis and interpretation.

Over the past decade, OSS has seen much turmoil. During the first half, both the annual budget, as well as the budget projections for the future, saw steep declines. At the same time, OSS staffing was reduced from more than 200 civil servants and supporting contractors, to fewer than 70 persons. It was therefore thought that the organization required a change from a discipline structure (Astrophysics Division, Space Physics Division, and Planetary Science Division) to a functional organization, which combined all scientists in the “Research Division” and all engineers and program managers in the “Flight Programs Division.”

This change, which was made in 1996, did indeed lead to economies and efficiencies. For example, the research program solicitation and selection processes were standardized across all space science disciplines, and combined into a unified annual call for proposals. Similarly, the flight mission selection processes were also modified so that they now have the same structure in all disciplines.

On the other hand, the organizational separation of scientists and engineers/managers made it more difficult for program scientists

and program managers to work together on specific space science missions. The “faster, cheaper, better” approach for science missions led to a major increase in the number of space flight missions in study, development, or operations phases. Combined with increasing annual budgets and budget projections for space science (for a budget history, see <http://www.aas.org/policy/index.htm>) an increasing OSS staff level was required. This staff increase was approved during the second half of the past decade, and is continuing now. In July 2001 we therefore switched back from the functional organization to a discipline-oriented structure:

- The Sun-Earth Connection Division contains all research and mission programs for solar and heliospheric physics and the Geospace sciences.
- The Astronomy and Physics Division is responsible for all astrophysics research and mission programs.
- The Solar System Exploration Division manages all planetary research and mission programs, with the exception of Mars Exploration missions which are managed in the Mars Exploration Program Office under a separate director. The Solar System Exploration Division also manages the Astrobiology program, since practical applications of this program will first become possible within the solar-system context rather than outside our solar system.

For names and biographies of the directors of these division, as well as for all other senior personnel in the Office of Space Science, the reader is invited to our internet website <http://spacescience.nasa.gov/admin/index.htm>.

## APPOINTMENTS

### Vanden Bout To Step Down

The Associated Universities, Inc. has announced that NRAO Director of seventeen years, **Paul A. Vanden Bout**, will step down sometime in 2002. Vanden Bout cited a desire to have more time to pursue his research interests. AUI will begin the search for his replacement and Vanden Bout promised to say on until someone has been selected. He plans to take sabbatical leave after a new Director has been appointed and upon his return will assume a position on the NRAO research staff.

During Vanden Bout’s tenure, the NRAO grew steadily even in uncertain budget periods. The facilities have expanded to include the Very Long Baseline Array (VLBA), the largest full-time astronomical instrument in the world; technological enhancements to the VLBA, called the Expanded VLA; and the Robert C. Byrd Green Bank Telescope, the world’s largest fully steerable radio telescope. Vanden Bout has also worked to develop the international partnership for the Atacama Large Millimeter Array to be built in Chile.

### O’Keefe Confirmed to Head NASA

On 20 December, the Senate confirmed President George W. Bush’s nominee, **Sean O’Keefe**, as Administrator of NASA. O’Keefe has had a distinguished career in public service specializing in defense and budget issues. He has worked closely with members of both Bush administrations.

In 1978 he earned a Master of Public Administration from Syracuse University’s Maxwell School of Citizenship and Public Affairs and in that same year was appointed as a Presidential

*Continued on the next page*

## ASP NEWS

### Bennett New ASP Executive Director

The Astronomical Society of the Pacific has announced the selection of **Michael Bennett** to be its new Executive Director. He has served as ASP's Acting Executive Director since August 2001, after the departure of James C. White.

From 1996 to 1997, Bennett served as the Society's Education Coordinator, published the teachers' newsletter "The Universe in the Classroom," and, for the past three years was in charge of ASP's contract to provide education and public outreach services for NASA's SOFIA mission.

Bennett holds a bachelor's degree in Interdisciplinary Physical Science from San Francisco State College and a master's degree in Interdisciplinary Science Education from San Francisco State University. He began his career in the planetarium field, and was responsible for some of the early work in using the planetarium for educational activities and laboratory exercises instead of just shows and presentations. Bennett also spent several years in marketing and advertising of high-tech products.

"The AAS and the ASP have a long history of very cordial relations and close cooperation," said Bennett. "I have already talked to Bob Milkey, Bruce Partridge, and Susana Deustua, and we are looking forward to even closer cooperation in the future."

### APPOINTMENTS

*Continued from page 16*

Management Intern. He served on the staff of the US Senate Committee on Appropriations for eight years and was Staff Director of the Defense Appropriations Subcommittee.

From 1989-1992 he served as Comptroller and Chief Financial Officer in the Department of Defense when Dick Cheney was Secretary. In 1992, then President Bush appointed him Secretary of the Navy where he served briefly before taking various faculty and administrative positions at Pennsylvania State University. In 1996 O'Keefe became Louis A. Bantle Professor of Business and Government Policy, an endowed chair at the Maxwell School and also served as the Director of National Security Studies, a Johns Hopkins-Syracuse University partnership to provide executive education programs for Department of Defense managers.

O'Keefe comes to NASA from the Office of Management and Budget where he was Deputy Director.

### Hewitt to Head MIT's Center for Space Research

*From 25 January 2002 MIT Press Release*

On 16 January, **Jacqueline N. Hewitt**, Massachusetts Institute of Technology professor of physics and a radio astronomer, took over from Claude R. Canizares, the directorship of the MIT Center for Space Research. Hewitt has a PhD from MIT and joined the faculty in 1989.

The Center for Space Research (CSR) was founded in 1965 as an interdepartmental center to support research in space science and engineering, astronomy and astrophysics. It helps to design, build and run instruments for NASA space vehicles. Canizares was director of the CSR since 1990 and in October 2001 was named associate provost of MIT.

### PRIZES AWARDED AT WASHINGTON MEETING

*AAS Photos by Richard Dreiser, © American Astronomical Society*

*Wallace Sargent received the Russell Lecturer certificate from his wife and fellow Caltech professor, AAS President Anneila Sargent.*



*Outgoing HEAD chair Alice Harding (NASA GSFC) is flanked by Rossi Prize winners Yasuo Tanaka (left, Max Planck Institute for Extraterrestrial Physics) and Andrew Fabian (right, University of Cambridge).*

*Kenneth Sembach (STScI) received the Pierce Prize from President Sargent and spoke about discoveries from FUSE.*



*Donald Osterbrock (center, Lick Obs.) received the Doggett Prize. HAD officers Ronald Brashear (Smithsonian Inst.) and Barbara Welther (SAO) presided.*



## GENERAL NEWS

### Enhanced Capabilities of the Arecibo Telescope

Paul F. Goldsmith, Director, National Astronomy and Ionosphere Center

**Introduction:** The Arecibo Gregorian feed system, plus other telescope enhancements resulting from the recent upgrade, provide effectively a new instrument. Since the upgraded telescope returned to service four years ago, there has been a steady increase in the capabilities offered to the astronomical community. We have made great strides in simplifying the user interface, which, combined with the availability of high-speed Internet 2 connection to the Observatory, results in remote observing being a viable option for many types of observations. This opens up a range of new possibilities for users.

#### Surface Adjustment & Antenna Performance:

Photogrammetry has been used to measure the positions of the 38,778 panels making up the primary surface. The first round of adjustments has produced an accuracy of better than 2 mm rms, allowing high efficiency at frequencies up to at least 8 GHz. This effort will continue during 2002, aiming for good efficiency up to 10 GHz. Extensive radiometric measurements of antenna efficiency exist up to 6 GHz, comprehensive data being available at <http://www.naic.edu/~phil>. The telescope sensitivity depends on zenith angle, with representative values being 10 K/Jy at L-band (1.4 GHz) and S-band (2.4 GHz), and 7 K/Jy at C-band (5 GHz) (see Fig. 1.1, 1.2). Gregorian receivers with about 10 K/Jy sensitivity are available at 327, 430 and 610/700 MHz.

**Spectroscopic Capability:** The present spectrometer provides four sub-bands, each with up to 50-MHz bandwidth per polarization for 3-level sampling. These can be placed as the user chooses within and up to 1-GHz bandpass. Full Stokes capability is also available, as is 9-level digitization, with tradeoffs in maximum frequency coverage. The maximum number of lags per polarization is between 1024 and 4096 per sub-band depending on the mode of operation selected. Details of the correlator configurations and capabilities are at [http://www.naic.edu/~astro/general\\_info/correlator/correlat.htm](http://www.naic.edu/~astro/general_info/correlator/correlat.htm). An impressive 6-cm spectrum of H<sub>2</sub>CO absorption by K. Mueller & N. Evans (UTexas) shows the hyperfine structure of this transition very clearly (Fig. 2). This spectrum contains just total power "ON-source" data; no switching was needed to obtain the excellent baseline seen, gaining a factor of two in sensitivity compared to position switching.

**Pulsar Observing:** The use of pulsar instrumentation developed by non-NAIC groups is encouraged. Many such devices, including backends for timing and search, are available to all users; for a list of instruments and capabilities go to <http://www.naic.edu/~astro/astronomy.htm>, then click on "Pulsar Obsv." and then "Instrumentation." The latest NAIC machine is the Wideband Arecibo Pulsar Processor (WAPP), which currently offers 50- and 100-MHz bandwidths. The WAPP is a digital autocorrelation machine, with very fast dump times and high spectral resolution. It will form the basis of the signal processing system for the forthcoming Multibeam system (see below), although we also expect to soon have up to four WAPPs,

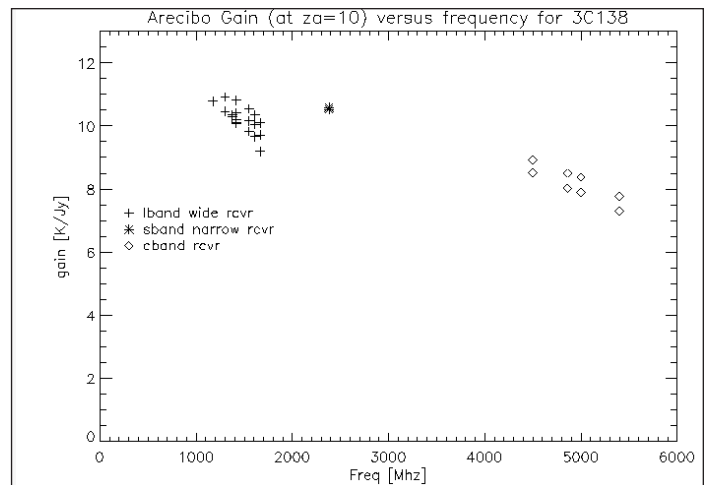


FIGURE 1.1

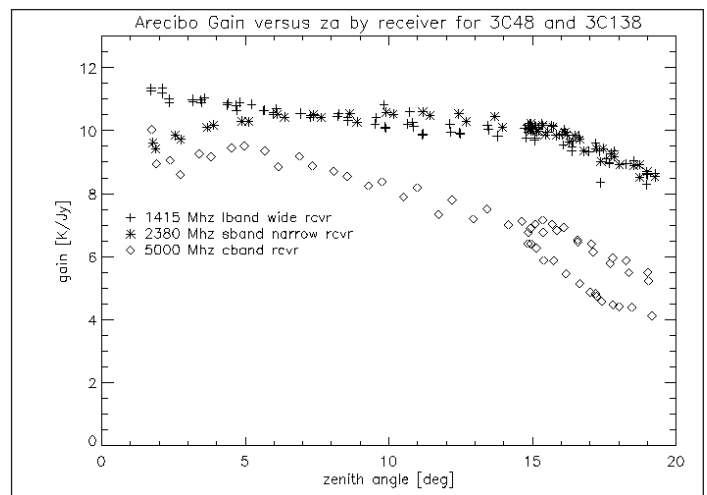


FIGURE 1.2

a total bandwidth of 400 MHz, available for single-pixel pulsar research.

**VLBI Capability:** Arecibo has long participated in VLBI, but is now entering a new, exciting phase. This is due to the arrival of a VLBA4 recording system, compatible with both the VLBA and EVN. First fringes have been obtained with this, and we are scheduling VLBI time in conjunction with the VLBA, EVN and Global VLBI Network. For more information go to <http://www.naic.edu/~astro/astronomy.htm> and then click on "VLBI at Arecibo."

**Radio and Radar Studies of the Solar System:** Dramatic new results on Near-Earth Asteroids, planetary surfaces, Saturn's rings, and Titan have been obtained with the upgraded S-band radar system. Some of these can be seen by going to <http://www.naic.edu/aomenu.htm> and clicking on the "Planetary Studies" button.

#### Ongoing Projects

##### a) Noise Reduction: Tertiary Skirt

A major source of noise additional to that of the receivers alone is spillover past the edge of the tertiary reflector. Just as the ground screen around the primary reflector dramatically reduces pickup of radiation at 300 K from the surroundings, a small "tertiary skirt" has been designed to provide the same benefit.

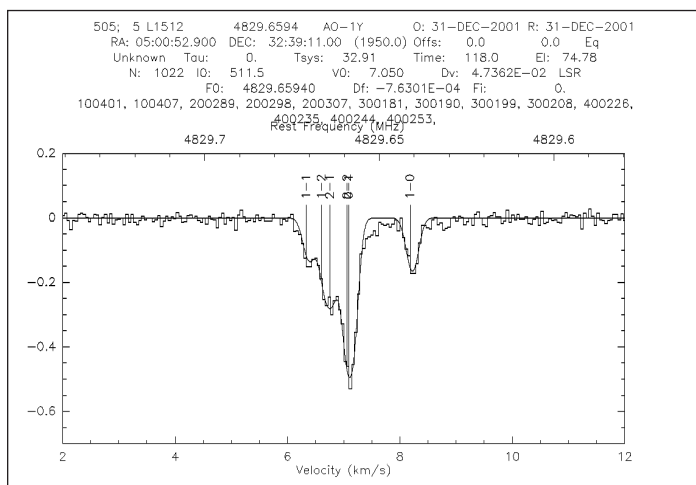


FIGURE 2.

This should be installed by mid-2002, with an expected reduction of system temperatures by 5-10 K.

#### b) *New Single Pixel Receivers*

A receiver covering 8 to 10 GHz has just been installed, and first measurements of performance are in progress. The receiver bandpass includes the J=1-0 transition of HC<sub>3</sub>N at 9.1 GHz. NAIC thus encourages users to submit proposals for this receiver for the 1 June deadline (observing time starting 1 Oct. 2002), with the understanding that these may be “shared-risk” observations given calibration and pointing issues.

A 3-4 GHz receiver is in its final testing stages and should be installed early in 2002. Excellent antenna performance is anticipated for pulsar and spectroscopic observations, the latter including the important CH line at 3.3 GHz. This receiver, too, should be available for the 1 June 2002 proposal deadline.

A new 1.1-1.7 GHz (L-band) receiver is currently under construction. This has a lower-loss orthomode transition than the current unit, and incorporates a recently developed feed horn design, offering significantly lower system temperatures. System installation is expected by mid-2002.

#### c) *L-Band Multibeam Receiver*

NAIC is moving ahead with plans to develop an L-band multibeam system for Arecibo. A 7-pixel dual-polarization receiver is envisaged, covering 1.225 to 1.525 GHz. The receivers will have input flange temperatures of about 10 K. For this front end, there will be a minimum of 100 MHz/pixel/polarization available for spectroscopy and pulsar studies. This system is expected to be available in early 2004.

The deadlines for submitting observing proposals for the Arecibo Telescope are **1 February**, **1 June**, and **1 October**. See <http://www.naic.edu/~ehowell/proposal.htm> for complete information about submitting proposals. Feel free to contact any staff member at the Observatory if you have any questions.

## Final Stages: First Solar System Decadal Study

Mark V. Sykes, *DPS Past Chair*, [sykes@as.arizona.edu](mailto:sykes@as.arizona.edu)

For forty years, astronomy and astrophysics decadal studies, conducted under the auspices of the National Academy of Science, have shaped the activities and planning of our national agencies that fund astronomical research. These studies identify and prioritize scientific issues and the means of addressing them for the next decade. They have informed the NASA Strategic Plan and provided a metric against which accomplishment has been measured. They have carried substantial weight in selling programs to Congress, because the recommendations of these studies have been held up as the consensus of the American astronomical community. The “Great Observatories,” including the Hubble Space Telescope and closing with the launch of the Space Infrared Telescope Facility, have been among these recommendations.

At the time of the October 2000 meeting of the Division for Planetary Sciences (DPS) of AAS in Pasadena, the Pluto-Kuiper Express had been cancelled (for the first time), sparking controversy over priorities in NASA’s Outer Planets Program. A decadal study for solar system exploration had been recently advocated by the DPS, and it was felt by many that it would offer advantages to NASA as well as the planetary community by giving focus to our overall solar system exploration efforts in a way that would generate broad community support. Dr. Edward Weiler, NASA Associate Administrator for Space Science, publically expressed his interest in the concept at that meeting.

The activities defining solar system exploration present challenges for a decadal study. In general, planetary missions — the most expensive components — are narrowly focused, have specific targets defined in advance of construction, and an instrument payload designed on the basis of accumulated knowledge from decades of ground based observations, meteorite studies, theoretical work and analysis of data from other missions. This contrasts with the typical astronomy and astrophysics mission that is a large orbiting facility from which individuals can propose to observe a broad spectrum of targets. A solar system exploration study cannot focus on missions without addressing the diverse infrastructural activities that give them definition and focus.

In December 2000, an initial letter from Dr. Weiler to the National Research Council began the process for the first planetary decadal study. The DPS expressed its strong support for this activity and made a number of suggestions regarding the scope of the effort to which Dr. Weiler was open. In April 2000, a final charge by NASA was transmitted to the NRC containing the following elements:

- A “big picture” of solar system exploration — what it is, how it fits into other scientific endeavors, and why it is a compelling goal today;
- A broad survey of the current state of knowledge about our solar system today; and
- An inventory of the top-level scientific questions that should provide the focus for solar system exploration today; these will be the key scientific inputs to the road mapping activity to follow.
- A prioritized list of the most promising avenues for flight investigations and supporting ground-based activities.



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**SOLAR SYSTEM DECADAL STUDY**

*Continued from previous page*

Dr. **Michael Belton**, of Belton Space Science, formerly of NOAO, currently the Galileo imaging team leader, and a well-known and respected member of the planetary community, was selected to head the study. A Steering Group was empaneled (chaired by Belton, and co-chaired by **Carolyn Porco**, Southwest Research Institute) to write the report with inputs from Discipline Panels over which the solar system exploration enterprise was divided: Inner Planets (chaired by Dr. **Carle Pieters**, Brown U.), Giant Planets (**Reta Beebe**, New Mexico St. U.), Large Satellites (**Alfred McEwen**, U. of Arizona), and Primitive Bodies (**Dale Cruikshank**, NASA Ames). The NRC Committee on Planetary Exploration (COMPLEX), chaired by **John Wood**, (Harvard-Smithsonian) was already working on a report on Mars exploration and it was decided that that report would provide the basis of the Mars contribution to the study. Later, the NRC Committee on Extraterrestrial Life (COEL), chaired by **Jonathan Lunine** (U. Arizona) was asked to provide a report on astrobiology. Over the next six months, the Steering Group and Discipline Panels held a number of town hall meetings at locations around the country to get input from the planetary community at large. Drs. Beebe and Pieters were particularly aggressive in sending out mass emailings soliciting input from members of their related disciplines.

In support of these efforts, the DPS assumed a leadership role facilitating communication to the planetary community at large from the NRC panels, as well as provided informational updates on events and opportunities to contribute. The DPS funded the creation of an interactive Website for community-initiated input to the decadal study and gained the co-sponsorship of the Meteoritical Society and the planetary divisions of the American Geophysical Union and Geological Society of America. This site allowed for real-time discussions and the creation of community decadal panels who would write white papers on priorities for the next ten years. A suggested common outline for these white papers was provided. These community panels were self-selected both in topic, membership, and leadership. Areas included, but were not limited to, Planetary Atmospheres, Venus, Terrestrial Analogs to Mars, Human Exploration of Near-Earth Objects, Mars, Io, Planetary Rings, Comets, Instrument Technology Development, and Education and Public Outreach. Ultimately, white papers were generated by 23 panels, with 372 individual authors. The DPS committed to publishing these white papers in a book to be entitled, *The Future of Solar System Exploration (2003-2013)*, thus making a record of this input to the decadal study, and creating an incentive for contributors. The book will be published by the Astronomical Society of the Pacific.

The community white papers (at <http://www.aas.org/~dps/decadal>), represent more than just source material for the decadal study. Experts in numerous subdisciplines have gotten together and provided an overview of the important issues of those subdisciplines, identified how issues can best be addressed, and in many cases, distilled the essential elements motivating scientific investigations in those areas. These documents mark where we are today and will be a great resource for future researchers writing proposals for research grants, telescope time,

and spacecraft missions. They will also be of value when the next decadal study is initiated.

Ultimately, the NRC Steering Group must make prioritizations across all subdisciplines. To facilitate this final step in the decadal process, Mike Belton and the DPS have worked together to solicit input from the planetary community on this subject. This began at the DPS conference in New Orleans in November 2001 during "NASA Night." A panel consisting of Dr. Belton, the chairs or vice-chairs of the Discipline Panels and Dr. Colleen Hartman (NASA Director of Solar System Exploration) took input from the audience of more than 200.

The audience was asked to address two questions:

- "What were the three most important discoveries of the past decade?"; and
- "What are the three most important investigations that should be done in the next ten years?"

The planetary community decadal website was updated to allow scientists to continue to respond to those questions directly to Dr. Belton through January 2002. Since then, the NRC Discipline Panels have completed their work and the Steering Group is digesting the volumes of input it has received to craft the final decadal report. The report is scheduled to be completed by the end of March 2002, and will undergo review by the NRC before its anticipated delivery to NASA and the public at the end of May.

Efforts by the NRC decadal panels and the planetary professional societies have given every planetary scientist an opportunity to provide substantive input into the first solar system exploration decadal study. We believe every planetary scientist, from graduate student to senior researcher, has something of importance to contribute, whether that contribution is small or large, unique or widely held. Acquiring as much of that input as possible has been a major priority – and critical to the creation of consensus and support for the final report. Planetary scientists have responded with energy and imagination. The success of the final report will be a testimony

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## ANNOUNCEMENTS

### NSO Observing Proposals

The current deadline for submitting observing proposals to the National Solar Observatory is **15 May 2002** for the third quarter of 2002. Forms and information are available from the NSO Telescope Allocation Committee at PO Box 62, Sunspot, NM 88349 for Sacramento Peak facilities ([sp@nso.edu](mailto:sp@nso.edu)) or PO Box 26732, Tucson, AZ 85726 for Kitt Peak facilities ([nso@noao.edu](mailto:nso@noao.edu)). A TeX or PostScript template and instruction sheet can be emailed at your request; obtained by anonymous ftp from <ftp.nso.edu> (`cd observing_templates`) or <ftp.noao.edu> (`cd nso/nsoforms`); or downloaded from <http://www.nso.noao.edu/>. A Windows-based observing-request form is also available at the Website. For SP Facilities, Users' Manuals are available at <http://www.nso.edu/telescopes.html> and for KP facilities at <http://www.nso.noao.edu/nsokp/nsokp.html>. Proposers to SP may inquire whether the Adaptive Optics system may be available for their use. Observing time at National Observatories is provided as support to the astronomical community by the National Science Foundation.

## CSO Call for Proposals Due 31 May 2002

The Caltech Submillimeter Observatory (CSO) encourages observing participation by astronomers from both US and non-US institutions. For complete instructions for application and information about available instruments, including new receivers see <http://www.submm.caltech.edu/cso/cso-call.html>. Applications for observing time between 1 Sept. 2002 through 31 January 2003 are due by mail **31 May 2002**. Applications will be reviewed by an outside peer group.

## Call for NRAO Observing Proposals

Astronomers are invited to submit proposals for observing time on the NRAO Green Bank Telescope (GBT), Very Large Array (VLA), and Very Long Baseline Array (VLBA):

Instrument	Deadline	Observing Period	Note
GBT	2002 Jun 1	2002 Sep - 2002 Dec	
	2002 Oct 1	2003 Jan - 2003 Apr	
VLA	2002 Jun 1	2002 Sep - 2002 Dec	C config/max baseline 3 km
	2002 Oct 1	2003 Jan - 2003 Apr	D config/max baseline 1 km
VLBA	2002 Jun 1	2002 Sep - 2002 Dec	
	2002 Oct 1	2003 Jan - 2003 Apr	

The NRAO is seeking the NSF's approval to have a program in place, starting in 2002, to support GBT research by students, both graduate and undergraduate, at US universities. Details will be announced upon approval.

The NRAO and the European VLBI Network jointly handle proposals for observing time on the Global VLBI Network. The deadline is **1 June 2002** for the session in November 2002. Further information on NRAO instruments and proposal submission routes is available at <http://www.nrao.edu>, the NRAO homepage.

## Gruber Cosmology Prize: Nominate by 15 May

The Cosmology Prize of the Peter Gruber Foundation and co-sponsored by the International Astronomical Union, recognizes individuals who have contributed to fundamental advances in the field of cosmology.

A gold medal and \$150,000 cash prize are presented annually to a leading cosmologist, astronomer, astrophysicist, or scientific philosopher in recognition of his or her ground-breaking theoretical, analytical, or conceptual discoveries.

Nominations for the 2002 Cosmology Prize are due no later than **15 May 2002**. The official nomination form should be printed out, completed and mailed to Patricia Murphy Gruber, President, Peter Gruber Foundation, 6000 Estate Charlotte Amalie, Suite 4, St. Thomas, VI 00802. Complete information can be found at <http://www.petergruberfoundation.org>.

## Maria Mitchell Women in Science Award

Since 1998, the Maria Mitchell Association has offered an annual award to recognize an individual, program or organization that encourages the advancement of girls and women in the natural and physical sciences, mathematics, engineering, computer science and technology. An award of \$10,000 is given to one individual, program or organization from the US each year. The nomination deadline is Monday, **30 April 2002** (postmark date). For complete information see [http://www.mmo.org/wis\\_info.html](http://www.mmo.org/wis_info.html).

## AIP Offers Archives Grants

The AIP History Center's mission is to help preserve and make known the history of modern physics, astronomy, and allied fields. To promote these goals, the Center offers a Grants to Archives program. Grants may be up to \$10,000 each and can be used to cover direct expenses connected with preserving, inventorying, arranging, describing, or cataloging appropriate collections. See <http://www.aip.org/history/grmtgde.htm> for grant guidelines or call 301-209-3165. Deadline for receipt of applications is **1 July 2002**.

## Fulbright Distinguished Chairs: Apply by 1 May

Awards in the Fulbright Distinguished Chairs Program are viewed as among the most prestigious appointments in the Fulbright Scholar Program.

Candidates should have a prominent record of scholarly accomplishment. Applicants should submit a letter of interest (about three pages), a curriculum vitae (maximum eight pages) and a sample syllabus (maximum four pages) by **1 May 2002** deadline. Following a review during early summer, scholars selected for the short list for each chair will be asked to complete a full application by 2 August. For details for this award and for other Fulbright grants, see <http://www.cies.org/>.

## Nominate for Jansky Lectureship by 1 April

The National Radio Astronomy Observatory invites nominations for the 2002 Jansky Lectureship. The Karl G. Jansky Lectureship is an honor established by the trustees of Associated Universities, Inc., to recognize outstanding contributions to the advancement of astronomy. First awarded in 1966, it is named in honor of Karl G. Jansky who, in 1932, first detected radio waves from a cosmic source.

Please send nominations by **1 April 2002**, to the Director's Office, National Radio Astronomy Observatory, 520 Edgemont Road, Charlottesville, VA, 22903-2475, or to [brodrigu@nrao.edu](mailto:brodrigu@nrao.edu). For historical information on the Lectureship, see <http://www.nrao.edu/jansky/janskyprize.shtml>.

## Fullam Proposals Due 2 April

Dudley Observatory announces its annual Fullam Award, a grant of up to \$10,000 for an innovative project in astronomy. See <http://www.dudleyobservatory.org/> for details. The deadline for proposals is **2 April 2002**.

## NSF-MPS Internships in Public Science Education

The NSF Directorate for Mathematical and Physical Sciences (MPS) has announced the second year of a program to support Internships in Public Science Education (IPSE). IPSE is intended to bring current research results from MPS disciplines to the public by promoting partnerships between the MPS research community and specialists in public science education. The program provides support for undergraduate and graduate students and K-12 teachers to work with MPS research scientists and with professionals at science centers and museums on projects in public science education. The deadline for submission to the program is **7 May 2002**. See <http://www.nsf.gov/pubs/2002/nsf02064/nsf02064.htm> for the program announcement (NSF02-064).



## INTERNATIONAL NEWS

### International CODATA Conference in Montreal

29 September–3 October 2002, Hotel Delta Centre Ville,  
Montreal, Canada

The Conference features prominent scientists and technologists as plenary and invited speakers addressing themes including: Preservation and Archiving of Scientific and Technical Data; Interoperability and Data Integration; Emerging Tools and Techniques for Data Handling; Legal Issues in Using and Sharing Scientific and Technical Data; Information Economics for Scientific and Technical Data; and Ethics in the Creation and Use of Scientific and Technical Data.

Contributed papers are invited on these themes, as well as on other aspects of scientific and technical data. Especially welcomed are papers on interdisciplinary data topics. Submit abstracts for contributed papers to [codata@dial.oleane.com](mailto:codata@dial.oleane.com) by **22 March 2002**. For detailed registration and program information see <http://www.codata.org>

### IAU General Assembly in Sydney, Australia

The XXV<sup>th</sup> General Assembly of the International Astronomical Union will be held **13-26 July 2003** in Sydney, Australia at Darling Harbour. Complete details and registration forms will be available at <http://www.astronomy2003.com/> in July 2002. A number of special interest tours during the conference will visit many of the country's astronomical facilities. In addition, tours led by experts are being planned to visit some of Australia's unique environmental and cultural sites, including tours of the desert environments of Central and Northern Australia, the Great Barrier Reef and the rainforest and wilderness regions of Tasmania.

US astronomers must be invited to attend the General Assembly by the United States Nominating Committee of the IAU (USNC-IAU) which can be ensured by successfully applying for IAU membership to the Committee. The June *AAS Newsletter* will discuss the qualifications for IAU membership and the August *Newsletter* will include instructions for applying and a membership application form. Applications are due **15 October 2002** to the USNC-IAU Secretary, Arlo U. Landolt. Applicants will be notified of acceptance by the Committee by February 2003.

### Women Scientists Collaborate Internationally

The American Association for the Advancement of Science (AAAS) Directorate for International Programs announces the *Women's International Science Collaboration (WISC) Program* for 2001-2003. Supported by NSF, this program aims to establish new research partnerships between women scientists and their colleagues in Central/Eastern Europe, Newly Independent States of the former Soviet Union, Near East, Middle East, Pacific, Africa, the Americas, and Asia. Small grants (\$4,000-5,000) will provide travel and living support for a US scientist and, when appropriate, a co-PI to visit a partner country to develop a research program. Two competitions are scheduled in 2002 with application deadlines in 15 January and **15 July**. Approximately 40 awards will be made in each competition. For further application information see <http://www.aaas.org/international/wiscnew.shtml>.

## HONORED ELSEWHERE

### de Zeeuw, Meunier Win Descartes-Huygens Prize

AAS Member **Tim (P. T.) de Zeeuw**, a professor of astrophysics at the University of Leiden, deputy director of Leiden Observatory, and director of the Netherlands Research School for Astronomy (NOVA), has won the 2001 Descartes-Huygens Prize along with French chemist, Bernard Meunier from Toulouse. The Descartes-Huygens Prize was instituted in 1995 by the French ministries of Foreign Affairs and of Research, and the Dutch ministry of Education, Culture and Science. It is awarded annually



*Tim de Zeeuw of Leiden University Observatory and director of the Netherlands Research School for Astronomy (NOVA).*

to a French and a Dutch scientist who have actively contributed to the scientific collaboration between the two countries. The prize supports a stay of about half a year in France for the Dutch winner or in Holland for the French recipient.

de Zeeuw was cited for notable contributions to a number of areas of astrophysics, but is most widely known for his studies of the formation, dynamics, and evolution of galaxies. He has initiated a number of projects in collaboration with French astronomers. Among these was noted his essential contribution to the SAURON project, a collaboration between Leiden Observatory, Observatoire de Lyon and the University of Durham, which uses a purpose-built panoramic integral-field spectrograph on the William Herschel Telescope on La Palma to study the kinematics and linestrength distributions of nearby early-type galaxies.

### Rubin Wins John Scott Award

Winning the 2001 John Scott Award are **Vera Rubin** of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, and chemistry Nobel laureate, K. Barry Sharpless, W. M. Keck Professor of chemistry at The Scripps Research Institute in La Jolla, California. The award is bestowed by the Philadelphia Board of City Trusts in accordance with the provisions of the will of John Scott, an Edinburgh druggist, who established a \$4000 trust fund in 1822 and stipulated that a prize be given "to men or women who make useful inventions." Rubin was recognized for a "major contribution to establishing the existence of dark matter through analysis of experimental data, thereby enlarging our grasp of the universe and hence the scope of human endeavor." For more information about the award see <http://www.garfield.library.upenn.edu/johnscottaward.html>.

WASHINGTON NEWS  
Continued from page 24



your thoughts and concerns on the development and implementation of performance-criteria for science-oriented federal agencies.

Finally, Dr. Marburger praised the outreach and education efforts of the astronomical community. He stressed that our science is particularly well-suited to bringing the excitement of scientific research into the

classroom at all grade-levels and encouraged us to continue our efforts in this area.

The full text of Dr. Marburger's comments is available both on the website of the Office of Science and Technology Policy (<http://www.ostp.gov>) and through a link on the Current Issues section of the AAS Public Policy web pages (<http://www.aas.org/policy/CurrentIssues.html>).

### Congressional Visits Day

Chris Conselice, Caltech, [cc@astro.caltech.edu](mailto:cc@astro.caltech.edu)

As most of us know the advancement of astronomy in its present form is entirely dependent upon funding from the National Government. The expensive costs of new instrumentation and projects cannot be supported solely by private universities, foundations, individuals or even state governments as in the past. The major astronomical discoveries over the last 30 years have largely been through programs funded by the Federal Government, and this trend is bound to continue. As such, it is critically important for the astronomical community to realize this and to take an active role in the policy decisions of our Government to ensure that decision makers understand the importance of astronomy in our society.

To facilitate this, a group of scientists and engineers, including astronomers, visits Capitol Hill every spring to discuss the importance of science in the technological and cultural progress of society and to strengthen the scientific community's bond with law-makers. In 2001, I participated in this program and encourage every astronomer who has the opportunity to do the same.

During these Congressional visits, a team of a few scientists goes to the offices of Congress members to discuss the detailed important role science plays in national life. Mostly we met with Congressional staffers who are very influential in persuading their Congressional bosses what their constituents are thinking and the latest on issues.

Two things stood out for me during these visits. The first was how serious Congress takes the funding of science. Congressional staffers and members of Congress were very up to date and knowledgeable on astronomical issues to the point where they brought up and discussed projects such as NGST, ALMA, Gemini and the Keck Interferometer as if they were astronomers long familiar with the field. Furthermore, it became clear that nearly all members of Congress are interested in supporting science at some level and more than one staffer mentioned that if more interest from the public was expressed in funding research it would be easier to justify increasing support.

The progress of astronomy is thus a battle on two fronts - one the visible work we astronomers do day by day in trying to understand the universe - the other the efforts by mostly non-scientists in the government who understand and support our scientific goals. We could not do our science without their involvement and interest. With this in mind, it is important for members of the astronomical and scientific community to continue to express to their members of Congress the importance of scientific research. Finally, any astronomer who get the chance would learn a great deal about this process by spending some time on Capitol Hill to discuss these issues in person with Congressional offices who are usually more than happy to meet with people. Active participation will not only increase the astronomical community's understanding of how the funding process operates, but also get our message out to the sources of our funding the importance of our research.

### AAS to support AIP State Department Fellow

The AAS Council has approved a proposal from the Committee on Astronomy and Public Policy to support the American Institute of Physics State Department Science Fellow program for the next three years at \$7,500 per year. Building on the long-term success of the AIP Congressional Fellow Program, this program provides diplomatic policy makers with scientific expertise as well as exposing scientists to the intricate workings of the Nation's diplomacy. The AAS will participate in the selection process and updates on the program will be given to the Council at each AAS meeting. Details on the 2003 fellow program will be available in the June *Newsletter*, and more information is available on the AIP web site:

<http://www.aip.org/mgr/sdf.html>.

### Deadline Reminders: AAS Grants

The AAS sponsors several grant programs all of which have application deadlines this Spring. See details at <http://www.aas.org/grants.html>.

**29 March 2002:** International Travel Grant

**29 March 2002:** Chretien International Research Grant

**3 May 2002:** Small Research Grant.

### Member Deaths Noted

Since the December *Newsletter*, the Society is saddened to learn of the deaths of the following members:

David J. van Blerkom  
Lawrence Dunkelmann  
Edwin J. Prouse  
John A. Russell  
Robert A. Schommer  
Julian J. Schreier  
Philip E. Seiden  
Lee W. Simon  
C. Bruce Stephenson



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## WASHINGTON NEWS

Kevin B. Marvel, Deputy Executive Officer



### Marburger's Address in DC

Dr. **John H. Marburger, III**, Director of the Office of Science and Technology Policy, addressed nearly 1,200 members of the AAS at the 199th meeting in Washington, DC, on 8 January 2002. This was Dr. Marburger's first speech to a discipline-specific scientific society.

Having a background in particle physics, Dr. Marburger was

surprisingly familiar with our field and with detector technology. In a brief tour of the exhibit hall prior to his speech, he stopped by several exhibit booths and engaged the exhibitors in conversation, in one case inquiring about the maximum obtainable resolution from a particular grating design and asked about alternative design options.

In his prepared remarks, Dr. Marburger stressed the fact that the current administration would use performance-based management across all government agencies, including NSF and NASA. He applauded our discipline for undertaking the Decadal Survey, a priority-setting document generated each decade by a committee of the National Research Council with the input of the entire astronomical community. But he said the Decadal Survey alone is not enough to guarantee funding increases for

astrophysical research. Performance criteria must be developed and will be implemented. It is up to our discipline to help the current administration create useful and meaningful criteria and help with their implementation. If we do not step up to the challenge, this administration will move forward on their own. We must participate in this process, which began with a cross-discipline consideration of scientific performance criteria at a special symposium at the National Academy of Sciences in February and will continue to be developed throughout the coming year. His remarks to the Society lasted about 35 minutes, leaving ample time for questions.

Marburger reiterated that input to the Office of Management and Budget is requested and will be valued. Please consider writing to the Director of OMB, Mitch Daniels (Mr. Mitch Daniels, Director, Office of Management and Budget, Executive Office of the President, 725 17th St., NW, Washington, DC 20503) with



Science Advisor John Marburger stood alongside AAS Deputy Press Officer Lynn Cominsky as the press grilled him at the meeting.

AAS Photo by Richard Dreiser,  
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