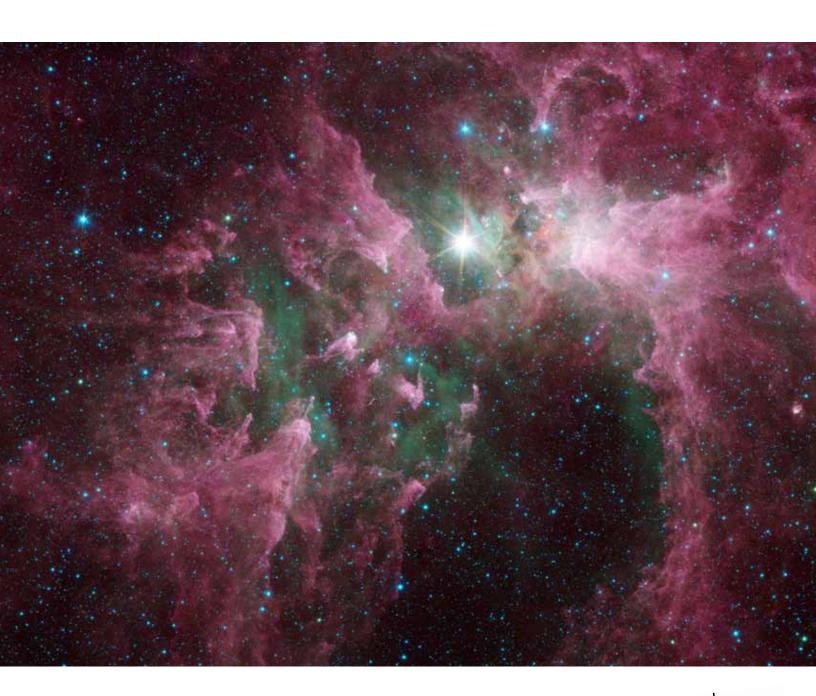
# AMERICAN ASTRONOMICAL SOCIETY 2012 ANNUAL REPORT





### AAS MISSION AND VISION STATEMENT

The mission of the American Astronomical Society is to enhance and share humanity's scientific understanding of the universe.

- 1. The Society, through its publications, disseminates and archives the results of astronomical research. The Society also communicates and explains our understanding of the universe to the public.
- 2. The Society facilitates and strengthens the interactions among members through professional meetings and other means. The Society supports member divisions representing specialized research and astronomical interests.
- 3. The Society represents the goals of its community of members to the nation and the world. The Society also works with other scientific and educational societies to promote the advancement of science.
- 4. The Society, through its members, trains, mentors and supports the next generation of astronomers. The Society supports and promotes increased participation of historically underrepresented groups in astronomy.
- 5. The Society assists its members to develop their skills in the fields of education and public outreach at all levels. The Society promotes broad interest in astronomy, which enhances science literacy and leads many to careers in science and engineering.

Adopted 7 June 2009

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Established in 1899, the American Astronomical Society (AAS) is the major organization of professional astronomers in North America. The membership (~7,000) also includes physicists, mathematicians, geologists, engineers and others whose research interests lie within the broad spectrum of subjects now comprising contemporary astronomy. The mission of the AAS is to enhance and share humanity's scientific understanding of the universe.

## PRESIDENT'S MESSAGE

## David J. Helfand



In 2012 there were 7 minutes of terror and 527,033 minutes of smooth sailing. The former, of course, refers to the spectacular landing of the Curiosity rover on the surface of Mars on August 6th; the latter represents the remainder of the year described in this report — a year in which the American Astronomical Society sponsored successful meetings, operated the

highest-impact journals in the world of astronomy, enhanced its public policy presence, worked to support its membership in their scientific and educational activities, and strove continuously toward its singular mission: to enhance and share humanity's scientific understanding of the universe.

New discoveries poured forth at an unabated rate. Planets appeared just about everywhere — around binary stars, in the habitable zone of Sun-like and lower-mass stars, even around a star in the nearest system to the Sun, Alpha Cen B. The aptly named Curiosity rover advanced our understanding of Mars's history weekly. Precision cosmology got ever more precise. Asteroseismology from the Kepler mission offered a window into the interior structure of stars only dreamed of by a century of stellar structure modelers. The connection between the evolution of galaxies and the growth of their central black holes became ever more intriguing. The Hubble Space Telescope entered its 23rd year of operation, and the VLA, at which I first observed 35 years ago, was reborn as the Jansky Very Large Array. Our members all did more than their share of enhancing our understanding of the universe.

Sharing this new understanding was also a major activity. Our journals published 4,400 articles — and made them instantly accessible to the user of any U.S. public library that asked for them. Our publication model — with shared costs between authors and subscribers and full open access after one year — was endorsed by the government as the policy for all publicly funded research. As a result of cost-conscious management and a growing volume of papers, page charges were reduced by 15%, and subscription costs to libraries have grown slower than inflation over the past decade. The journal reserve funds are extremely healthy, and future page-charge reductions are planned.

In partnership with the Astronomical Society of the Pacific, the Pacific Science Center, and the Center for Astronomy Education, we launched the AAS Astronomy Ambassadors program at the January meeting in Long Beach, where 30 participants worked with experienced outreach professionals to learn about the most effective ways to communicate our science to the public. The Shapley program is being revamped to focus, in part, on minority-serving institutions as part of a broader effort to increase the diversity of our field. And our press office continues to support and encourage the disproportional share of science coverage we get in the popular media.

In addition to its scientific and educational activities, the Society is our discipline's voice in Washington. We significantly expanded our public policy presence by hiring Dr. Joel Parriott, an astronomer with over a decade of experience in Washington at the National Research Council and the Office of Management and Budget. Working with the Committee on Astronomy and Public Policy and our very able Bahcall Public Policy Fellow Bethany Johns, Joel led the strongest effort the Society has ever had in monitoring developments in Washington that affect our field; facilitating meetings between our members and our representatives, Congressional staffers, and administration officials through both the Congressional Visits Day and our Communicating With Washington initiative; and issuing position papers and public statements on matters of importance to astronomy and the broader federal research enterprise.

Over the past 50 years, the AAS Executive Office has grown along with our Society — from a single, part-time position, to an office of 20 professionals who dedicate more than full time to organizing meetings, running journals, supporting outreach and education, guiding public policy, and managing efficiently our \$13M annual budget. The captain of this remarkable organization is Dr. Kevin Marvel, who will be completing his sixth year at the helm in the coming months and is taking a well-deserved sabbatical in the second half of 2013. To Kevin, to all of the Executive Office staff, to my tireless predecessor Debbie Elmegreen, to the Council, and to the more than 100 other member volunteers who work on our committees, on our working groups, and on our division leadership committees, thank you for a great year. While the new year will undoubtedly bring challenges for our field, we have a number of initiatives planned to make the Society stronger than ever and to advance our mutual goals: to enhance and share humanity's scientific understanding of the universe.

## EXECUTIVE OFFICER'S MESSAGE

Kevin B. Marvel



Each year, the AAS Executive Office works diligently to realize the Council's strategic vision for the Society. Our main activities continue to be the financial and operational management of our journals, execution of the main Society meetings in January and June and the various Division meetings held throughout the year. Additional efforts include operation of the Job Register, press and outreach support and public policy and advocacy efforts. To help enable all of our programs we maintain financial and IT infrastructure and staff. It takes a combined and dedicated effort to fulfill our mission to enhance and share humanity's scientific understanding of the Universe.

In 2012 we held our winter meeting in Austin, TX, and our summer meeting in Anchorage, AK. Both were well-attended and resulted in positive financial outcomes. The Society does not derive direct support from its journal publication activities to support other projects or programs, so it is important to ensure meetings do not lose money. The Austin meeting had over 2,900 registrants, while the Anchorage

meeting had over 1,000. We also supported meetings of three of our divisions, the DPS, DDA and SPD. We are also undertaking a new meeting activity in 2013, organizing competed topical conferences. We hope to grow this program over time, while providing a venue for the very best and most exciting focused scientific meetings each year. Look for details on the AAS web site.

Our public policy activities have been substantial and are detailed elsewhere in this report. In 2012, we hired our first Director of Public Policy. The John Bahcall Public Policy Fellow program will continue in the Fall of 2013. The Communicating With Washington program, which brings two or three astronomers to Washington each week Congress is in session, continues to be an important advocacy tool, with the primary focus being the three NRC Decadal Survey Reports on Astrophysics, Heliophysics and Planetary Science.

Our journals continue to exceed expectations; we have experienced a 15 percent increase in published content for the third row in a year. We own and carefully oversee two of the most important titles in our discipline, the *Astrophysical Journal* (including *Letters* and *Supplement*) and the *Astronomical Journal*. Our subscriber base continues to grow as well, through both consortia sales and individual institutions. The Council expanded the reach of our journals by approving a plan to provide access in US public libraries at no cost. Based on a successful trial effort, we will likely expand the program to include high-school libraries as well and explore options for overseas distribution, such as in the UK.

Sections in this report on our financial position and fundraising activities highlight just some of the many projects and programs carried out to support the AAS's mission, including the new Astronomy Ambassadors effort detailed in the section on Education and Outreach.

I remain truly energized by the Council's engagement in strategic governance of the AAS. They dedicate two days at each meeting to fulfill their oversight duties and this model allows one day of open-ended discussion and thinking with a one-day business meeting, structured to encourage active and open dialog, while members of the Executive Committee remain in near-constant email contact and discussion and also hold an in-person meeting each fall. Your elected leaders are the key to a successful organization and I thank them for their time, while thanking you for electing them.

Together the elected leadership and the Executive Office are accomplishing much on behalf of our members and our discipline. I look forward to another year of success and the ongoing passionate pursuit of our shared mission and goals.

## FINANCIAL REPORT

The Annual Audit for 2012 was completed by Tate & Tryon. As with past years, the audit report received an unqualified opinion. Our financial performance in 2012 exceeded expectations. In 2012, there was an overall increase in net assets of \$2.9 million dollars; resulting in a total net assets of \$20,180,784 as of 31 December 2012.

#### **2012 Operational Highlights**

Through financial support from NSF, we funded the following programs.

- Funded 154 individuals under the International Travel Grant in the amount of \$264,363.
- Funded career workshops at the 2012 AAS winter meeting in the amount of \$13,100.

Through financial support from NASA, we funded the following programs.

 Funded 27 individuals under the Small Research Grant for a total amount of \$93,754.

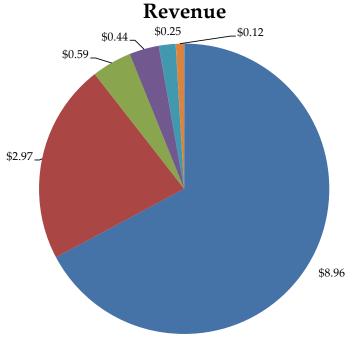
We are pleased report that the AAS General Fund generated a surplus of \$55,946. At 31 December 2012, the unreserved balance in the General Operating Reserve Fund was 1,753,016; representing 40.8 percent of the annual operating expenses.

AAS bylaws, Article VIII.3, mandate that each Journal maintain a reserve fund equal or above the level of one-half of the annual operating expenses. In addition to the journal reserve funds, we have a segregated journal archive reserve fund to ensure the long-term maintenance of the electronic journals. As of 31 December 2012, the journal reserve fund balances reached \$10,032,682 representing 147.3% of the 2012 expenses.

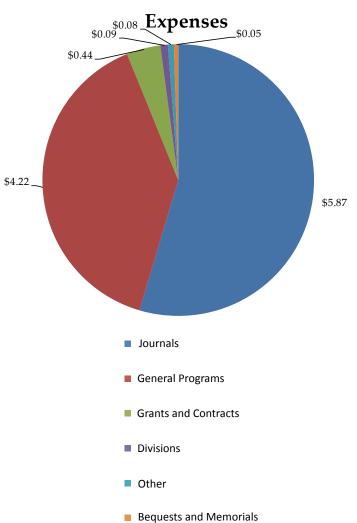
Figure 1. AAS Balance Sheet				
Assets	2012	2011		
Cash and Cash Equivalents	1,122,823	1,382,635		
Accounts Receivable	801,722	1,190,631		
Prepaid Expenses	506,700	265,219		
Investments	17,445,241	14,290,376		
Deposits	65,000	65,000		
Assets Held for Deferred Compensation	2,474	0		
Property and Equipment	236,824	53,615		
Totals Assets	\$20,180,784	\$17,247,476		
Liabilities and Net Assets				
Accounts Payable and Accrued	491,439	408,263		
Expenses				
Deferred Revenue	2,656,962	2,580,148		
Deferred Compensation	2,474	0		
Total Liabilities	\$3,150,875	\$2,988,411		
Net Assets				
Unrestricted	14,786,029	12,190,433		
Temporarily Restricted	1,678,992	1,504,104		
Permanently Restricted	564,888	564,528		
Total Net Assets	\$17,029,909	\$14,259,065		
Total Liabilities and Net Assets	\$20,180,784	\$17,247,476		

Figure 2. AAS Statement of Activities				
Unrestricted Activities	2012	2011		
Revenue				
Journals	8,962,059	8,134,275		
General Programs	2,972,594	2,772,112		
Grants and Contracts	593,887	274,833		
Divisions	439,209	257,478		
Other	249,498	63,682		
Bequests and Memorials	52,321	(14,066)		
Net Assets Released from Restrictions	72,087	72,706		
Total Unrestricted Income	\$13,341,655	\$11,561,020		
Expenses				
Journals	5,867,882	5,577,601		
General Programs	4,217,699	3,756,596		
Grants and Contracts	435,873	274,847		
Divisions	92,734	185,226		
Other	76,954	160,474		
Bequests and Memorials	54,917	57,636		
Total Expenses	\$10,746,059	\$10,012,380		
Change in Unrestricted Net Assets	\$2,595,596	\$1,548,640		
Temporary Restricted Net Assets				
Divisions	119,766	(25,974)		
Bequests and Memorials	71,160	(23,735)		
Contributions and Other	56,049	(7,695)		
Net Assets Released from Restrictions	(72,087)	(72,706)		
Change in Temporarily Restricted Net Assets	\$174,888	(\$130,110)		
Permanently Restricted Net Assets				
Contributions and Other	360	330		
Change in Permanently Restricted Net Assets	\$360	\$330		
Change in Net Assets	\$2,770,844	\$1,418,860		
Net Assets Beginning of Year	14,259,065	12,840,205		
Net Assets End of Year	\$17,029,909	\$14,259,065		

Figure 3. Annual Revenue and Expenses (in millions of dollars)



\*Bequest and Memorials includes Assest Released from Restrictions



## **MEMBERSHIP**

With more than 6,000 members in the US and more than 800 outside, the AAS membership is geographically diverse, with many members from countries beyond North America. The AAS is proud to draw members from countries all around the world as astronomy is clearly a global endeavor that knows no borders...after all, one sky connects us all.

Of course, we know that by growing our membership internationally through, for example, our International Affiliate membership class, we can expand the diversity of our membership to better represent the global astronomical enterprise. Already, many of our services know no boundaries, such as the AAS Job Register, AAS Wall Calendar, and AAS Membership Directory, and we work actively to ensure a focus in these publications beyond just North America. The Directory, for example, is recognized as the most comprehensive and accurate listing of international astronomy institutions and we are working

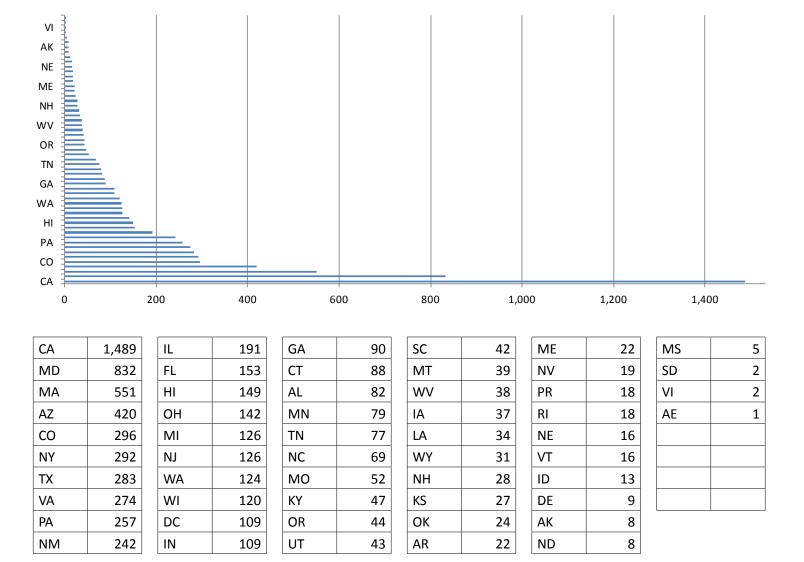
with the International Astronomical Union to ensure that our list and theirs are consistent, accurate and complete.

Our journals draw authors from all around the world and even our meetings are showing steadily increasing participation from astronomers working outside North America. We need this diversity to achieve our core mission, to enhance and share humanity's understanding of the universe.

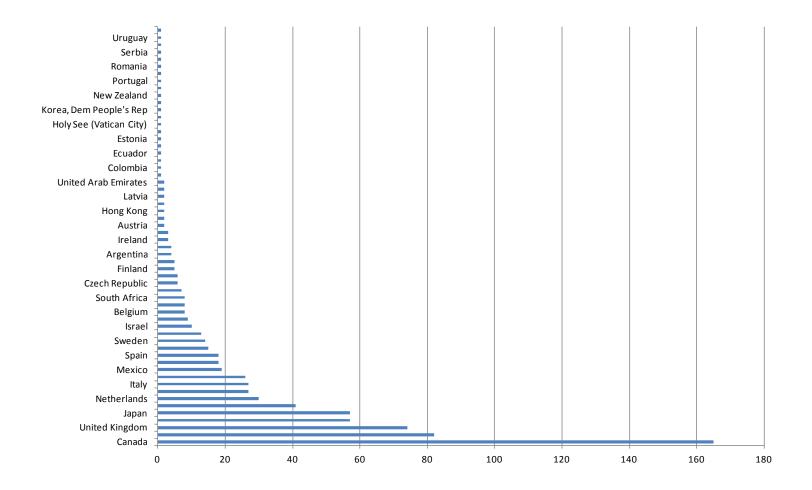
The graphs presented here provide a snapshot look at our geographic diversity both within and outside the US, representing the geographic locations of our members in July 2012.

The graphs presented here provide a snapshot look at our geographic diversity both within and outside the U.S., representing the geographic locations of our members in September 2012.

## **US Members by State - Total 6,416**



## Non-US Members by Country - Total 804



Canada	165
Germany	82
United Kingdom	74
Australia	57
Japan	57
Republic of Korea	41
Netherlands	30
France	27
Italy	27
Chile	26
Mexico	19
China	18
Spain	18
Taiwan	15
Sweden	14
Switzerland	13

Israel	10
Greece	9
Belgium	8
Brazil	8
South Africa	8
India	7
Czech Republic	6
Denmark	6
Finland	5
Norway	5
Argentina	4
Turkey	4
Ireland	3
Poland	3
Austria	2
Bahrain	2

Hong Kong	2
Iceland	2
Latvia	2
Lebanon	2
United Arab Emir-	2
ates	
Barbados	1
Colombia	1
Cyprus	1
Ecuador	1
Egypt	1
Estonia	1
Georgia	1
Holy See (Vatican	1
City)	
Iran	1

Korea, Dem People's Rep	1
Lao People's Dem Republic	1
New Zealand	1
Philippines	1
Portugal	1
Qatar	1
Romania	1
Russian Federation	1
Serbia	1
Singapore	1
Uruguay	1
Venezuela	1

# CHARITABLE DONORS

We are grateful for all charitable contributions to the Society and are pleased to provide special recognition of our donors in this annual report. Questions can be directed to the AAS Membership Services Director, Faye Peterson.

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## **PUBLISHING**

The Society plays an important role in supporting research actively through its publications. In 2012, the AAS published 4,258 peer reviewed articles in the Astronomical Journal (AJ), the Astrophysical Journal (ApJ), and Astronomy Education Review (AER). The Astrophysical Journal is routinely the top-ranked (by citation index) non-review journal in the discipline, as was the case again in 2012.

Over the past several years, there has been a remarkable increase in interest about access to scientific data, particularly data that are available in digital form. Many groups in the academy and even at the national and intergovernmental level have expressed concern that scientific data be carefully collected and conserved, not just for the investigators performing the immediate experiments, but also for wider dissemination, to facilitate further research. Not all experimental data are worth keeping; however the Society, through its Publications Board, takes the view that data that are worthy of safekeeping should be subjected to the same general vetting and quality assurance practices as traditional research articles: peer review, quality editing, normalizing, organizing, distributing, and preserving are as essential to data longevity as they are to maintaining the journal articles that constitute the traditional scholarly record. The AAS has been promoting this perspective at conferences and working groups for the past two years, and the publishing program is actively seeking and engaging partners to help create a data publishing environment in astronomy that is as vital as journal publishing.

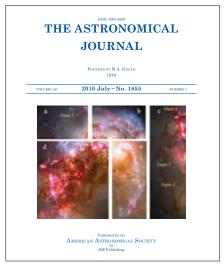
In 2012, the AAS initiated a program of free public library subscriptions. This program makes our online research journals available at no charge to public libraries in the US,

and provides an additional easy path for the general public to access our journals. As calls for public access have increased over the past few years, the AAS continues to adapt the publishing program to offer the kind of access that benefits the public. Staff in the Executive Office and personnel at our primary publishing vendors pay close attention to the functioning of our journals program. As a result of sound fiscal and operational management we were able to reduce author fees by 12.5% in 2012. Author fees are now charged in units of digital article components, so in dollar terms this reduction was from \$40 to \$35.

The major (Western) astronomy journals collaborated on a day-long workshop for authors and reviewers at the 2012 IAU General Assembly in Beijing. The workshop was offered four times during the General Assembly, with nearly two hundred individuals attending the sessions, which were very positively received. The journals were asked to reprise the workshop in 2015.

The philosophies that have guided the AAS publishing program are still relevant today as we continue to adapt to the changing environment for research. The Society's principal roles in publishing have to do with the business management of the program as well as the management of our authors' intellectual property. Our business model focuses primarily on two groups of stakeholders in scholarly research - scholars/authors and librarians/readers - and we strive to maintain balance between the two core constituencies, both in the values we offer to them and in the contributions we expect from them. Our approach to copyright is equally sensible. The Society obtains copyright from its authors so the AAS can ensure the value and the longevity of the scholarly communications that we publish – so that the scholarly integrity of our publications is preserved for the long term. As quid pro quo, the AAS offers a liberal return of rights to authors to re-use their work for scholarly purposes. We continue to manage the publishing program with these guiding principles in mind.





## PUBLIC POLICY

The AAS conducts a wide range of public policy activities on behalf of the membership and U.S. astronomy. The Committee on Astronomy and Public Policy (CAPP), whose members are appointed by the President of the AAS, guides many of the Society's policy activities. The CAPP is charged with staying informed of developments in science policy that might affect the astronomical community in the United States and carrying out advocacy initiatives with federal agencies and Congress.

The Director of Public Policy and the John Bahcall Public Policy Fellow are the staff members within AAS Executive Office who monitor policy issues on a day-to-day basis. They work closely with the CAPP to engage and disseminate information to both policymakers and the astronomical community. The AAS Council issued three CAPP-initiated policy statements in 2012, including two on the NSF portfolio review and one on the President's 2013 Budget Request.

The AAS is a member of several multi-society coalitions in Washington that work on science and science-education policy. These include the Coalition for National Science Funding (CNSF), the Task Force on American Innovation, the Energy Sciences Coalition, the Science-Engineering-Technology Working Group (SETWG), the STEM Education Coalition, and the Physical Sciences Education Policy Coalition. The AAS is also a member of the Intersociety Working Group and authors a chapter every year on the outlook for astronomy funding published in the AAAS Report on Research and Development.

CNSF primarily works on issues related to funding for the National Science Foundation. The coalition organizes an annual exhibition and reception on Capitol Hill to showcase NSF-funded projects. In 2012, the AAS sponsored an exhibit

by Dr. Jim Beletic, Senior Director in Space and Astronomy at Teledyne Imaging Sensors on astronomy's infrared detectors, the world's best technology made possible by NSF.

SETWG consists of members from various scientific and technical professional societies as well as universities and industry. The group sponsors an annual Congressional Visits Day each spring. This event brings together research scientists and engineers from all over the country for two days to learn how federal funding for science works and to lobby their elected Representatives and Senators for basic R&D funding. The two-day event was held on 24-25 April 2012 in Washington, DC. This event introduces AAS members to the federal budget process and science policy formulation and shows them the basics of meeting with Congressional offices.

The AAS Council initiated a new program, Communicating With Washington (CWW), in 2012. Volunteers learn how to most effectively communicate with policy makers and travel to Washington, DC to meet with policy makers. The goal is to have one or two astronomers visit Washington every week that Congress is in session and to visit every Congressional office, the Congressional science committee offices, and the White House at the Office of Management and Budget (OMB) and the Office of Science and Technology Policy (OSTP) over the life of the program. The message will be to educate and ask for support for the recommended priorities of the current and previous astronomical decadal surveys for astronomy and astrophysics, planetary science, and heliophysics released by the National Research Council. From 17 February to 13 September, there were 32 total volunteers from 20 individual states. The CWW program did not operate in the last quarter of the year due to the Presidential and Congressional election cycle.



Fifteen members of the American Astronomical Society traveled to Washington, DC to express the need for sustained and predictable federal funding of research and development (R&D) programs — including NASA, NSF, and the Department of Energy — which are critically important to American economic growth.

Photo credit: Nicole Zellner

# AAS/DIVISION MEETINGS

Everything's big in Texas — even AAS meetings. Registrations for our 219th semiannual gathering got off to a slow start, but by the time we assembled at the Austin Convention Center in January 2012 the meeting had expanded to be a near-record holder. A remarkable 2,928 registrants did their best to keep Austin weird, as instructed by countless bumper stickers and store-window signs throughout the city. Even the science program had grown to Texas size, stretching through the late afternoon of the meeting's fourth and final day.

And by "fourth" we really mean "sixth," since the weekend before the main program got under way was chock-full of workshops, committee meetings, and Historical Astronomy Division (HAD) sessions. As it always does, science took center stage, but the Austin meeting featured much more than the latest results in astrophysics and space science. For example, a series of special sessions and workshops offered professional-development opportunities for attendees at all stages of their careers. And there were so many public-policy Town Hall meetings that you literally couldn't attend them all, as they had to be scheduled in parallel sessions.

With 1,225 registered participants, the 220th AAS meeting in Anchorage, Alaska, in June 2012 didn't break the official attendance record for a summer meeting (1,350, Boston, May 2011), but it came close. Unofficially, the meeting almost certainly drew a record number of people. For one thing, many attendees brought their families along to experience the "Big Wild Life" that makes Alaska such a popular tourist destination. For another, two public lectures and a special student-outreach program attracted hundreds of visitors from the surrounding area. Whatever the final tally, the meeting was a huge success — both scientifically and logistically.

Many attendees were surprised to learn that this wasn't the first AAS meeting in Alaska. The 114th meeting was held in College, outside Fairbanks, in July 1963. Given how much everyone at the 220th meeting enjoyed the venue and the conference, it's probably a safe bet that the Society won't wait a half century before returning to the Last Frontier for a third time.

The AAS Division for Planetary Sciences (DPS) held its 44th annual meeting in Reno, Nevada, in October 2012. The venue, the Grand Sierra Resort & Casino, was certainly not typical of a science meeting, as you had to walk through, or around, noisy and colorful slot machines and gaming tables to get from your hotel room to the science sessions and Exhibit Hall. It's probably safe to say that very few of the 720 attendees spent much time gambling; instead, they engaged in heated discussions about everything from the origin of the

Moon, to how much water flowed on Mars, and when, to the composition of exoplanet atmospheres. This being the Wild West, the DPS banquet featured a visit from Mark Twain (or, at least, a reasonable facsimile thereof), who told many tales of his adventures in the region and even offered some witty thoughts on the number of planets in our solar system.

Four years ago U.S. astronomers made a significant discovery: the Long Beach Convention and Entertainment Center, where the AAS gathered for its 213th meeting. Smack in the "Waterfront Center of Southern California," the facility sports a glass concourse and lobby offering expansive views of the scenic harbor and downtown skyline. A pedestrian promenade links abundant hotels, shops, restaurants, and attractions with more than 5 miles of sandy Pacific Ocean beaches. Throw in Southern California's winter weather, which beats summer weather almost anywhere else, and it should come as no surprise that the AAS returned to Long Beach for its 221st meeting in January 2013. As is often the case for our annual winter gathering, this was a joint meeting with HAD and the High Energy Astrophysics Division (HEAD). In all, 2,332 astronomers, educators, journalists, and others showed up — not counting the 200 or so local students who dropped by on Tuesday to enjoy hands-on activities in the Exhibit Hall.

In addition to the usual education workshops on the weekend preceding the science sessions, the Long Beach meeting featured our inaugural AAS Astronomy Ambassadors workshop for early-career AAS members. This two-day workshop for 30 early-career AAS members helped participants gain a better understanding of how people learn and what makes outreach to nonscientists effective. They also got hands-on experience with materials already proven to meaningfully connect audiences with astronomy.

The main science program kicked off on Monday morning with the Kavli Lecture by Tom Soifer (Caltech), who spoke about a decade of discovery with the Spitzer Space Telescope. There were no fewer than 16 more invited presentations throughout the week. HAD and HEAD joined forces to hold a special session celebrating 50 years of X-ray astronomy, and HEAD sponsored a session on the first scientific results from the latest X-ray mission, NuSTAR, which was launched during the June AAS meeting in Anchorage. Our popular series of special sessions on professional development continued in Long Beach with dialogues on nonacademic career options, advocating for astronomy, childcare and family-leave policies, and initiatives to broaden the participation of women and minorities in astronomy.

# DIVISIONS, COMMITTEES & WORKING GROUPS









The AAS is a diverse group of members passionate about their discipline. What the AAS can accomplish is greatly enhanced by our Divisions, Committees and Working Groups. Each has a role to play, but all are enabled by the dedicated enthusiasm of volunteer leaders and participants.

The AAS Divisions cover all major areas of scientific endeavor. Our Divisions are: Division for Planetary Sciences, High Energy Astrophysics Division, Solar Physics Division, Division on Dynamical Astronomy, Historical Astronomy Division, and Laboratory Astrophysics Division. Each has their own governing committee, whose volunteer leaders guide the strategic direction of each Division and partner with the AAS Council to enhance our field. All AAS members may join any of the Divisions they choose, which have their own membership dues and bylaws. Several of the Divisions have Affiliate Memberships, which allow scientists who would not reasonably be or do not qualify as a member of the AAS to join.

The AAS Committees actually help implement many of the strategic goals of the AAS Council. A full list is available online

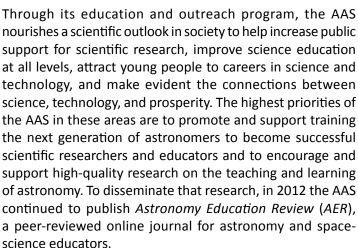
at the AAS website, but some of the important committees include the Committee on the Status of Women in Astronomy, Committee on the Status of Minorities in Astronomy, Committee on Public Policy, Publications Board and Employment Committee. Some committees require election, while most rely simply on interested individuals to volunteer for service. Each prize has its own selection committee and there are a range of administrative committees that look after the operation of the Society in a variety of ways. Individuals interested in volunteering for committee service should contact the AAS Secretary.

Working Groups are formed by the AAS Council to look after specific issues in our field. Sometimes Working Groups stay active for a long time, like the Working Group on Astronomical Software, while occasionally they "graduate" to a full-fledged Division, as outlined in our bylaws. The Working Group on Laboratory Astrophysics formally joined the Society in 2012 as our sixth Division.

AAS photos © 2012 Joson Images

## **EDUCATION & OUTREACH**





Thanks to the Center for Astronomy Education (CAE), the Collaboration of Astronomy Teaching Scholars (CATS), and the Association for Astronomy Education (AAE), weekend workshops and oral and poster sessions on various aspects of astronomy education continue to be regular features of AAS meetings. Members of these groups also publish Spark, the AAS education newsletter, twice each year, usually coincident with the Society's winter and summer meetings.

The Astronomy Education Board (AEB) provides oversight of AAS educational activities by giving advice to the Council, the Executive Officer, the Education Officer, and, since 2009, the Education & Outreach Coordinator. Dr. Rick Fienberg, who also serves as AAS Press Officer (see page 18), fills that last role to encourage and support members' efforts in education and outreach and to manage AAS education programs that can't be maintained through volunteer effort alone.

In 2012 the AAS Executive Office worked with the AEB to launch a new education-and-public-outreach (EPO) initiative called AAS Astronomy Ambassadors. Conceived by then-president Debra M. Elmegreen, the Ambassadors program



comprises a professional-development workshop and a community of practice designed to help improve early-career astronomers' ability to communicate effectively with students and the public. It provides mentoring and training experiences for young astronomers, from advanced undergraduates to beginning faculty; it also provides access to resources and a network of contacts within the astronomy EPO community.

By learning how to implement effective education and outreach strategies, AAS Astronomy Ambassadors become better teachers, better presenters at meetings, and better representatives of our science to the public and to government. And because young astronomers are a more diverse group than those who currently do the majority of outreach, they help the astronomical community present a more multicultural and gender-balanced face to the public, enabling members of underserved groups to see themselves as scientists.

Ambassadors are provided with a large library of outreach activities and materials that are suitable for a range of venues and audiences and that will grow with time. For much of this library we are using resources developed by organizations such as the Astronomical Society of the Pacific, the Pacific Science Center, and the Center for Astronomy Education for other outreach programs, though some resources have been created specifically for this program.

The first AAS Astronomy Ambassadors workshop was held at the 221st meeting of the AAS in Long Beach, CA, in January 2013 and served 30 young astronomers chosen from more than 75 applicants. Incorporating feedback from workshop participants and lessons learned from the reports they've submitted after conducting their own outreach events, we are now planning the second annual workshop for a new cohort of Ambassadors to be held in January 2014 at the 223rd AAS meeting in Washington, DC.

Another new EPO activity emerged at our meetings in 2012, thanks to a big effort by the meetings team. Beginning at the June meeting in Anchorage, we invited about 200 local middle- and high-school students and their chaperones (teachers and/or parents) to drop in on Tuesday morning to hear a special presentation from an astronomer and then to tour the Exhibit Hall, where numerous exhibitors had prepared age-appropriate interactive demonstrations and other educational activities. This student EPO event has proven very popular and was held at the 44th DPS meeting in Reno as well.

We continued to work on strengthening the Harlow Shapley Visiting Lectureship Program, which sends AAS members on short visits to colleges and universities that don't have robust astronomy programs. The goal is to ensure that the program supports not only the part of our mission statement that commits the Society to training, mentoring, and supporting the next generation of astronomers, but also the part that commits us to promoting increased participation of historically underrepresented groups in astronomy. We wrote a proposal to overhaul the Shapley program, covering everything from the selection of lecturers and host institutions, through outreach and publicity, to follow-up and evaluation. With the

Council's support and in collaboration with the AEB, and with help from a volunteer AAS member recruited by AAS Executive Officer Dr. Kevin Marvel, we've begun implementing the plan.

Among the Education and Outreach Coordinator's other responsibilities is arranging judging for the Rodger Doxsey Travel Prize, which provides graduate students or postdocs within one year of receiving or receipt of their PhD a monetary prize to enable the oral presentation of their dissertation research at a winter AAS meeting. Ditto for arranging judging for the Chambliss Student Astronomy Achievement Awards, which recognize exemplary research by undergraduate and graduate students who present posters at AAS meetings. Finally, the Education and Outreach Coordinator serves as AAS liaison to other scientific societies' education programs. As a result of such collaboration with the American Institute of Physics (AIP), participation by the Society of Physics Students (SPS) is now a regular feature of winter AAS meetings; SPS exhibits at the undergraduate reception and holds a special evening poster session at which a well-known astronomer gives a career-oriented "pep talk" to the attending students.

AAS photos © 2012 Joson Images









## PRESS & MEDIA

The role of the AAS Press Office is to ensure media attention to newsworthy scientific results that are presented at Society meetings, presented by AAS members or other astronomy researchers at scientific conferences worldwide, published in peer-reviewed journals, or announced in press releases from recognized astronomy-related institutions. An ancillary role is to ensure media recognition for recipients of major astronomical prizes and honors, especially those awarded by the Society or its Divisions. These responsibilities fall to the AAS Press Officer, Dr. Richard Tresch Fienberg, who organizes press conferences at AAS meetings, handles media inquiries and requests for expert referrals, and manages the AAS press-release-distribution service, which forwards astronomyrelated releases from public-information officers to journalists all over the world and working in all forms of print, broadcast, and electronic media. He also distribute headlines and links to online press releases via the Twitter account @AAS Press. Rick is a member of the AAS Executive Office staff, though he works from home near Boston. Assisting as volunteers are Deputy Press Officers Dr. Larry Marschall (Gettysburg College) and Dr. Inge Heyer (Loyola University Maryland).

In preparation for AAS meetings, the Press Officer solicits press, photo, and video releases; arranges press conferences, photo opportunities, press tours, and seminars for science writers; and prepares media advisories and a press kit. During meetings, press conferences are webcast live for journalists unable to attend in person. Working with the American Association for the Advancement of Science's EurekAlert service, complimentary access to the electronic editions of *The Astrophysical Journal* and *The Astronomical Journal* is provided to accredited reporters who are not employed as astronomers.

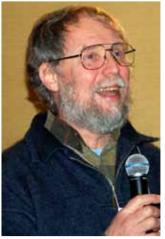
Another of the Press Officer's responsibilities is to arrange for photography at AAS meetings. For many years we've been relying on help from two volunteers, Kelley Knight Heins, an amateur astronomer from Texas, and Richard Dreiser, an astronomy educator at Yerkes Observatory, who would typically shoot one meeting each per year. In 2011 they both announced that they wouldn't be available after the January 2012 meeting. Effective with the June 2012 meeting, the AAS hired Imelda Joson, a professional photographer with whom Rick Fienberg used to work at *Sky & Telescope*. The quality of our meeting photography has taken a big leap forward thanks to Imelda and her husband, Edwin Aguirre, both of whom are accomplished astrophotographers as well.

We've been forwarding press releases to the news media by email for more than two decades. We maintain two lists: one for reporters eligible to receive embargoed releases, and one for PIOs (who, according to rules established by Science and Nature, are ineligible to receive embargoed releases). The lists include some 2,000 email addresses, with about 1,700 of them on the press list and 300 on the PIO list. On average, we forward about 100 ± 20 press releases each month. We receive dozens more, but we don't forward releases if we don't think they'll be of interest to our list members (as is the case, for example, with NASA releases about contract extensions and university releases about small grants to individual investigators). The @AAS\_Press Twitter account coincidentally also has about 2,000 followers, but not all of those are journalists or PIOs. Many are astronomers or members of the general public.

The 219th AAS meeting in Austin, TX, attracted 66 press registrants. Another 23 reporters requested the webcast

password. Corresponding numbers for the 220th meeting in Anchorage were 22 and 11, respectively. As is typically the case, onsite press registrants were a mix of approximately two-thirds reporters and one-third public-information officers (PIOs). The Press Officer organized 9 press conferences at the Austin meeting and 6 at the Anchorage meeting; there's always more news at our winter meetings than at our summer meetings because the former have many more attendees and papers than the latter.





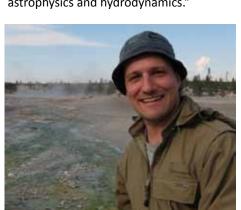


L-R: Rick Fienberg, Larry Marschall, Inge Heyer

## PRIZE WINNERS



W. David Arnett
Henry Norris Russell Lectureship
"for a lifetime of seminal contributions
to the fields of stellar explosions, nuclear
astrophysics and hydrodynamics."



Eric B. Ford
Helen B. Warner Prize
"For his theoretical and computational research in the field of extrasolar planets, including ground-breaking work on the dynamical evolution of planetary systems and planet formation."



C. Megan Urry
George van Biesbroeck Prize
"For her tireless efforts to enhance the participation of women in astronomy and other scientific disciplines."



John A. Johnson

Newton Lacy Pierce Prize

"For major contributions to understanding fundamental relationships between extrasolar planets and their parent stars including finding a variety of orientations between planetary orbital planes and the spin axes of their stars."



Heather Knutson
Annie Jump Cannon Award
"For her pioneering work on the characterization of exoplanetary atmospheres."



Ronald Gilliland
Beatrice M. Tinsley Prize
"For his innovative work on ultra-high signal-to-noise observations related to time-domain photometry and the opening of this new frontier."



Chryssa Kouveliotou

AAS/AIP Dannie Heineman Prize

"For her extensive accomplishments and discoveries in the areas of gamma ray bursts and their afterglows, soft gamma repeaters, and magnetars."



Donald W. McCarthy

Education Prize

"For his tireless efforts over the past
three decades through the University of
Arizona's Astronomy Camp to educate and
involve more than 1500 students."



M. M. (Thijs) de Graauw
Joseph Weber Award for Instrumentation
"For his leadership in the construction of
powerful new astronomical instruments
including the Short Wavelength
Spectrometer on ISO and the Heterodyne
Instrument For the Infrared on Herschel."

## MEMBER DEATHS

The Society was saddened during 2012 to learn of the passing of the members listed here. The Society, through its Historical Astronomy Division, strives to publish an obituary for each AAS member after we are informed of his or her death. Obituaries are published in the Bulletin of the American Astronomical Society and available online through the AAS web pages. They are also provided to Astrophysics Data System. A complete index is available at had.aas.org/obits.html.

Kinsey A. Anderson Li-Zhi Fang William A. Baum David S. Heeschen Roger A. Bell Dave Koch **Beverly Bookmyer** Gerald Kron Robert F. Christy Dennis J. Lamenti Talbot A. Chubb Jaylee Mead Hilmar W. Duerbeck K. Michael Merrill Frederick E. Ellis Sir Patrick Moore

Claire Nevels Franco Pacini Stephan D. Price Karl Rakos William K. Rose Wallace Sargent William E. Shawcross Craig Waff

**Gart Westerhout** Albert G. Wilson Robert I. Wolff Kenneth M. Yoss **Arthur Young** Harold Zirin

#### AMERICAN ASTRONOMICAL SOCIETY

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#### 2010-2013

Edward F. Guinan, Villanova Univ. Patricia Knezek, NOAO/WIYN Observatory Robert Mathieu, Univ. of Wisconsin

#### 2011-2014

Bruce Balick, Univ. of Washington Eileen Friel, Indiana Univ. Angela Speck, Univ. of Missouri

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Front cover: The Tortured Clouds of Eta Carinae. Image Credit: NASA/JPL-Caltech