

AAS Newsletter

January/February 2012, Issue 162 - Published for the Members of the American Astronomical Society



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NW, Suite 400, Washington, DC 20009-1231;
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aas@aas.org; www.aas.org.

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

PIA15260: Herschel Sees Through Ghostly Pillars
Image credit: Far-infrared: ESA/Herschel/PACS/
SPIRE/Hill, Motte, HOBYS Key Programme
Consortium; X-ray: ESA/XMM-Newton/EPIC/
XMM-Newton-SOC/Boulanger

President's Column

Debra Meloy Elmegreen, president@aas.org



It was an eventful autumn for astronomy, with spotlights on the Mars Science Laboratory (MSL), the Nobel Prize in Physics for the discovery of dark energy, and the ongoing Congressional budget debates.

How exciting that MSL has successfully launched! The hard-working Mars Exploration Rovers Spirit (now silent) and Opportunity will have company when the sophisticated and much larger Curiosity rover lands on Mars next August to assess atmospheric evolution and analyze soil and rocks for signs of

past habitability. MSL was a key priority of the previous planetary decadal survey, though it has evolved considerably since its general description in the 2003 report. It is easy to overlook the awe of such an accomplishment—how remarkable, really, that something like MSL can be done. We have come to take it for granted that such achievements are possible, even commonplace, yet missions to Mars have often proved challenging.

I was transported back in time a few weeks ago when I took a busman's holiday and went to the Kennedy Space Center and the NASA Then and Now Tour through Cape Canaveral. The sites where the first rockets lost control, where NASA eventually launched satellites successfully, and where the courageous Mercury and Gemini astronauts further paved the way to space, followed of course by the Apollo and Shuttle astronauts, underscored the perilous and proud achievements of the US space program. I realized I had first seen the gantries exactly 42 years ago, as an impressionable teenager awed by all things space, at a time when reaching it was a very new US vision. But I did not recall thinking about details like how some Gemini astronauts spent two weeks strapped in their seats in a tiny capsule orbiting the Earth. I marveled at how the computer power for that achievement can now fit in an inexpensive wristwatch today. And I saw MSL sitting on Launch Complex 41 just days before it began its journey to Mars. The “wow” factor is undeniable there.

Through my adult eyes, I look back in amazement that reaching space, by machine or man, happened so quickly. The Cape visit made me appreciate all the more the technological and scientific marvels that we have achieved, and made me eager for the next great ventures. As the Austin meeting approaches while I write this, I look forward especially to celebrating 50 years of spaceflight through the eyes of astronaut/astronomer Steve Hawley (who used the robotic arm to deploy the Hubble Space Telescope), just as NASA director Charlie Bolden and astronaut John Grunsfeld just named NASA's new Associate Administrator for the Science Mission Directorate)

inspired us with tales of their HST launch and servicing missions at the AAS meeting in Washington two years ago.

My tourist view of NASA via Cape Canaveral came on the heels of a NASA Headquarters visit in November. There, AAS Committee on Astronomy and Public Policy Chair Jack Burns and AAS Executive Officer Kevin Marvel and I were fortunate to have a meeting with Director Bolden, Acting Associate Administrator Charles Gay, and Assistant Associate Administrator Colleen Hartman. During our chat, Mr. Bolden stated how he hoped NASA could continue to do the things it does well. We talked about the decadal surveys, and he underscored the value of having community priorities from the planetary science and astronomy and astrophysics and upcoming solar and space physics reports. He appreciated how crucial it is to have a suite of small and medium and large missions going on in each of the different divisions within the Science Mission Directorate in order to let different fields flourish. He also reiterated his view of the importance of doing outreach to engage youngsters in the glories of science, so that we keep inspiring the dreamers of today to become the achievers of tomorrow.

And what better role models than our new Nobel Laureates? December brought the celebration of astronomers Saul Perlmutter, Brian Schmidt, and Adam Reiss. We congratulate them and all of their team members who shared in the discovery of dark energy. Before heading to Stockholm, the laureates had a private meeting with President Obama in the Oval Office, followed by a reception at Blair House hosted by the State Department and Presidential Science Advisor John Holdren. Kevin Marvel and I, along with other astronomers and guests, were delighted to help honor them along with the other American Nobel laureates. We are proud to count them among our AAS membership. Their recognition was also timely in bringing astronomy to the public eye while important Congressional budget decisions were being made.

During the fall, I attended meetings as a member of the Astronomy and Astrophysics Advisory Committee (AAAC), which is a Congressionally mandated committee that provides advice to NSF, NASA, and DOE on interagency and decadal matters), and the National Academies' Board of Physics and Astronomy (BPA). The news we received from the funding agencies was grim in

terms of accomplishing the visions of the decadal reports; the agencies are working as hard as they can to achieve the priorities within the confines of their budgets. At the end of November, there was a "minibus" on science that was voted in by the House and Senate, following their joint conference on the Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies, and subsequently signed into law by President Obama. It included money to keep James Webb on track for a 2018 launch, along with budgets for NASA planetary and astrophysics and heliophysics divisions and for NSF that are better than we might have expected in this terrible economy, though less than we had initially hoped. We will continue to advocate for our diverse AAS interests as we move into the FY2013 budget process, hoping that other priorities such as the top large planetary and astrophysics missions Mars MAX-C and WFIRST can ultimately be achieved, and that the LSST (Large Synoptic Survey Telescope) can eventually make its way into the MREFC (Major Research Equipment and Facilities Construction) line.

NSF Astronomy will be dependent on the Portfolio Review to help find its way forward. The portfolio review process is important regardless of the economic situation, since it affords an opportunity to assess the needs of the community and the proper balance of grants and old and new facilities and instruments and development. In the present situation, we have to accept that there cannot be new starts in NSF without some tough decisions. NASA relies on senior reviews to fold in new missions while phasing out older ones. It is critically important for individual astronomers to weigh in on the process with their views. Remember that your comments on NSF astronomy are due by 31 January, as detailed on http://www.nsf.gov/mps/ast/ast_portfolio_review.jsp#link1.

As you look back on the wonderful science presented at the Austin AAS meeting, that will have ended by the time you read this, be sure to take time to reflect on all the amazing accomplishments we can achieve collectively. However uncertain the budget outlook may be at times, we live in an extraordinary age of technological capability and scientific discovery. It is not something to take lightly.

From the Executive Office

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



We start the New Year with some exciting activities, most ongoing, that will have a positive impact on our communication with our members. First and foremost, we are rebuilding our communications infrastructure from the ground up, based on a content management system that will allow multiple authors to create content that can then

be distributed via multiple channels to our members, the public and other audiences. This project will take a full two years to implement, but pieces of it are already rolling off the assembly line, so to speak. Another eagerly anticipated result of this effort is a totally new website, again, based on a content management system and the multi-author model, which will become immediately apparent when it becomes available.

The AAS staff is focused on providing the best possible service to our members and others as we fulfill the Society's mission. This is most apparent at our meetings, where we have the most direct interaction with you and where we hope you see the fruits of the very substantial planning and implementation of one of our core capabilities, meeting logistics. The Austin meeting will host more than 2400 people, with large numbers of parallel and plenary sessions, splinter meetings, evening events and receptions. From an attendee's point of view it does not seem that complicated, but this is because our meeting staff have worked so hard to make things come together for our attendees.



Because of this capability, the Council approved a proposal I submitted to them in June to organize conferences that were not specifically AAS-related. A recent example is the Extreme Solar System meeting held in September this year. Although scientifically organized by a committee led by Geoff Marcy and Fred Rasio, the AAS handled all logistical issues with the input of the organizers. We hope to build this service as it is central to the Society's mission, something we do very well and assists the Society financially as well. Additionally, we are planning an AAS Topical Conference series, which is under development and will be announced soon. The idea is to receive proposals for three such meetings per year, hold them at a single location in series, but slightly overlapped in time. This will save on logistical complexity and provide excellent price points from meeting venues. Stay tuned as we get this new series up and running. We anticipate three meetings for 2013 and three for 2014, with a proposal deadline in the middle of 2012.

Finally, our journals continue to perform exceptionally well. The *ApJ* continues to grow, the *AJ* is continuing to innovate and all the journals are maintaining a very rapid time from submission to publication, which is a key indicator that they are serving the community well. We look forward to having Fred Rasio take over as the *ApJL* Editor in January 2013 and give our utmost thanks to Chris Sneden for his many years of service.

As always, let me know what is on your mind or if you have a good idea by email: kevin.marvel@aas.org.

Happy New Year!

President-elect David Helfand and Executive Officer Kevin Marvel attended a leadership training workshop in November. This two-day workshop organized by the Council of Engineering and Scientific Society Executives (CESSSE) is given by Bud Tecker and Glen Crouch, recognized leaders in association management and governance. Plenty of time is provided for discussion and David and Kevin used the time to help frame some efforts David hopes to accomplish during his two-year tenure as President. A fellow workshop attendees snapped this photo with his Blackberry, providing a somewhat blurry view that both attendees hope will help hide their more glaring skin irregularities (wink!).

Space Debris Movie Opens

The growth of the space debris population should be of increasing concern to astronomers. First, because of the risk it presents to operating space telescopes in low Earth orbit (LEO) like the Hubble Space Telescope, and second, the fact that is now much more difficult to take wide field optical images without satellite streaks contaminating them.

AAS members should then find of interest the recently released movie 'Space Junk 3D' which premiered in January 2012 and is rolling out globally through 2012. It presents a popular but serious look at the space debris problem in LEO, with commentary from Don Kessler, former head of NASA's Orbital Debris Program Office.

First showings are at:

Adler Planetarium, Chicago, IL

St. Louis Science Center, St. Louis, MO

Liberty Science Center, Jersey City, NJ

Clark Planetarium, Salt Lake City, UT

Smithsonian NMNH, DC Environmental Film Festival, Washington, DC (March)

An K-12 educator's guide, film trailer and updated theater listings are available at: www.SpaceJunk3D.com

I have previewed this film, and recommend it to anyone who wishes to learn more about the space debris problem.

Patrick Seitzer

Chair, AAS Committee on Light Pollution, Radio Interference, and Space Debris

Honored Elsewhere

Members Elected as AAAS Fellows in 2011

In November 2011, the AAAS Council elected 539 members as Fellows of AAAS. These individuals will be recognized for their contributions to science and technology at the Fellows Forum to be held on 18 February 2012 during the AAAS Annual Meeting in Vancouver, British Columbia.

Congratulations to the following AAS Members:

Lars Bildsten, University of California, Santa Barbara

Megan Donahue, Michigan State University

Debra Meloy Elmegreen, AAS President, Vassar College

Giuseppina (Pepi) Fabbiano, Smithsonian Astrophysical Observatory

Chryssa Kouveliotou, NASA Marshall Space Flight Center

Chung-Pei Ma, University of California, Berkeley

John C. Mather, NASA Goddard Space Flight Center

Robert David Mathieu, University of Wisconsin-Madison

Sara Seager, Massachusetts Institute of Technology

Kristen Sellgren, Ohio State University

Martin White, University of California, Berkeley

Member Deaths

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

Howard B. Anderson

Beverly Bookmyer

Joseph M. Chamberlain

Talbot A. Chubb

David De Young

Audouin Dollfus

Hilmar W. Duerbeck

Ronald Greeley

Charles T. Kowal

Weidong Li

Irving W. Lindenblad

Patrick L. Nolan

Robert T. Rood

Sidney N. Stone

Harold Zirin

New Letters to the Editor Policy

The Letters to the Editor section of the Newsletter provides a forum for Society members to comment on the operation of the Society, as well as to alert the readership to policy issues of broad interest in matters germane to our mission. Letters must be signed and should not exceed 250 words. The Associate Editor may edit letters, but will consult with authors before doing so. Letters will be published at the discretion of the Editors.

Send to Jeff Linsky, Associate Editor, Letters, (jlinsky@jila.colorado.edu; 303-492-7838 phone; or 303-492-5235 fax) one week prior to the *AAS Newsletter* deadline.

Opting In and Out of AAS Publications

If you would no longer like to receive paper copies of the *AAS Membership Directory* or the *AAS Calendar*, please send an email to address@aaas.org or log in to your member record at aaas.org.

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

2012 AAS Member Anniversaries

Annually, we acknowledge and thank our 25 year plus members for their commitment and service to the Society. Anniversaries for 2012 are listed in five-year increments and according to your join date. If your name was excluded please contact Crystal Tinch (crystal@aaas.org) and your name will be listed in an upcoming issue.

25 Years

Andersen, Johannes
Annis, James T.
Arendt, Richard G.
Armus, Lee
Aschwanden, Markus J.
Barlow, Thomas A.
Baron, Edward A.
Bowers, Charles W.
Braun, Robert
Caldwell, John A. R.
Cameron, Robert A.
Carignan, Claude
Carlstrom, John E.
Colgan, Sean W. J.
Cook, Timothy
Crenshaw, D. Michael
Davidson, Gerald T.
de Bergh, Catherine
Dejonghe, Herwig B.
DeLuca, Edward E.
Deustua, Susana E.
Ellis, Tracy A.
Evans, Ian N.
Evenson, Paul Arthur
Evrard, August E.
Falco, Emilio E.
Fey, Alan Lee
Foster, Roger S.
Frank, Juhan
Garnavich, Peter M.
Goodman, Jeremy
Graf, Paul
Graham, James R.
Greene, Thomas P.
Grossman, Scott A.
Hamabe, Masaru
Hayashi, Saeko S.
Hillier, Desmond John
Hogan, Craig J.
Kaiser, Mary Elizabeth

Kallrath, Josef
Karovska, Margarita
Kilston, Steven
Kirk, John G.
Koester, Detlev
Kouveliotou, Chryssa
Kuchar, Thomas Andrew
Layden, Andrew C.
Lee, Myung Gyoong
Lindler, Don
Lochner, James C.
Marr, Jonathan M.
Martel, Hugo
McIntosh, Gordon C.
McKay, Christopher P.
McLean, Ian S.
Mikic, Zoran
Min, Kyoung W.
Mok, Yung
Moody, J. Ward
Mooney, Thomas J.
Munn, Jeffrey A.
Murphy, Brian W.
Nowakowski, Leszek A.
Pesce, Joseph E.
Podsiadlowski, Philipp
Pryor, Wayne R.
Raffelt, Georg G.
Rettig, Terrence W.
Ries, Judit Gyorgyey
Rudy, Donald J.
Rupen, Michael P.
Ryden, Barbara S.
Sarajedini, Ata
Schaeffer, James R.
Shields, Joseph C.
Shrader, Chris R.
Simons, Douglas
Smith, Beverly
Stemwedel, Sally W.
Stone, James Mclellan
Struck, Curtis

Sugitani, Koji
Tokunaga, Alan T.
Tomczyk, Steven
Townsend, Leisa K.
Vacca, William D.
Van Dyk, Schuyler D.
Voit, Gerard Mark
von Hippel, Ted
Wang, Haimin
Webb, James Raymond
Westbury, Catherine F.
White II, James C.
Whittle, Mark
Woodard, Martin F.
Woods, D. Tod
Yamamoto, Satoshi
Yung, Yuk
Zensus, Anton

de Pater, Imke
Dick, Steven J.
Dobrovolskis, Anthony R.
Ellis, Jr., H. Benton
Friesen, Larry Jay
Gatley, Ian
Gioia, Isabella M.
Godfrey, C. P.
Hammer, Reiner
Hawley, John F.
Hill, Frank
Hill, John M.
Hurlburt, Neal E.
Hut, Piet
Impey, Chris
Jaco, Clint
Jakobsen, Anne Marie
Johnson, C. B.
Johnson, Judith M.
Kaitchuck, Ronald H.
Kamel, Osman Mostafa
Kawaler, Steven D.
Kim, Sang J.
Kingham, Kerry A.
Klimchuk, James A.
Koo, David C.
Kriss, Gerard A.
Leahy, Denis A.
Levine, Alan M.
Levy, David H.
Linfield, Roger
Loughlin, Jane E.
Lunine, Jonathan I.
Maccacaro, Tommaso
Madejski, Grzegorz
Mauche, Christopher W.
McCarthy, James K.
McConnell, Mark L.
McKinnon, William B.
Melott, Adrian L.
Melsheimer, Frank M.
Merritt, David

30 Years

Adler, David S.
Albert, C. Elise
Armandroff, Taft E.
Armstrong, J. T.
Athanassoula, E.
Azzopardi, Marc A.
Barbuy, Beatriz
Barvainis, Richard
Bautz, Mark W.
Bjorkman, Karen S.
Blizard, Jane B.
Boughn, Stephen Paul
Bower, Gary A.
Bradley, Richard F.
Braun, Douglas
Brodie, Jean P.
Bryan, Jr., James
Caldwell, Nelson
Centrella, Joan
Dame, Thomas M.
Davila, Joseph M.

Member Anniversaries continued

Mielbrecht, R. A. J.
Moore, Jeffrey M.
Newsom, Horton
Noll, Keith S.
Nolt, Ira G.
Odenwald, Sten
Owocki, Stanley P.
Pearson, Timothy J.
Pedelty, Jeffrey A.
Richards, Mercedes T.
Roberge, Wayne G.
Salzer, John Joseph
Sandell, Goran H. L.
Schmelz, Joan T.
Seitzer, Patrick
Shaya, Edward J.
Smith, Paul S.
Spencer, John H.
Steffes, Paul G.
Stinebring, Dan
Stocke, John T.
Trinchieri, Ginevra
Unwin, Stephen C.
Valeriani, Gino Paul
Vogel, Stuart N.
Vrtilek, Saeqa Dil
Wagener, Richard
Welch, Douglas L.
Whipple, Arthur L.
Wiedenbeck, Mark E.
Wilkes, Belinda J.
Williams, Barbara A.
Woodward, Charles E.
Yanagita, Shohei

35 Years

Allen, Mark
Bailey, Wayne L.
Bally, John
Beckwith, Steven
Blandford, Roger D.
Bleiweiss, Max P.
Briotta, Jr., Daniel A.
Carpenter, Kenneth G.
Cassen, Patrick

Christian, Carol A.
Christy, James W.
Cornett, Robert Huston
Coroniti, Ferdinand V.
Cowan, John J.
Dabrowski, Jan Paul
Dennis, Brian R.
Dere, Kenneth P.
Dopita, Michael A.
Draine, Bruce T.
Eisenhardt, Peter R.
Elsner, Ronald
Erickson, Edwin F.
Fant, Ali
Fischer, Jacqueline
French, Richard G.
Goldberg, Bruce A.
Grauer, Albert D.
Harding, Alice Kust
Hartmann, Lee W.
Heacox, William D.
Helou, George
Henden, Arne A.
Hildebrand, Roger H.
Howard, Sethanne
Hu, Esther M.
Huggins, Patrick J.
Huntley, James M.
Jones, Terry Jay
Keel, William C.
Keeley, Douglas A.
Kuan, Pui
Lee, Martin A.
Leibacher, John W.
Littmann, Mark
MacNeil, Paul E.
Malkan, Matthew Arnold
Medford, Ronald A.
Merrill, K. Michael
Monet, Alice K. B.
Mumma, Michael J.
Newman, William I.
Norman, Colin Arthur
Nuth, III, Joseph A.
Parker, Gary D.

Pier, Jeffrey R.
Raymond, John C.
Readhead, Anthony C. S.
Reasenberg, Robert D.
Rodriguez, Luis F.
Ross, Randy R.
Russell, Jane L.
Sakimoto, Philip J.
Sargent, Anneila I.
Sinha, Rameshwar P.
Smith, Horace A.
Snider, Joseph L.
Stark, Antony A.
Stebbins, Robin T.
Steiman-Cameron, Thomas Y.
Stockman, Jr., Hervey
Strong, Keith Temple
Talent, David Leroy
Tarbell, Theodore D.
Teegarden, Bonnard
Teem, John M.
Tohline, Joel E.
Tremaine, Scott D.
Twarog, Bruce A.
Valdes, Francisco
Valtonen, Mauri J.
Walter, Frederick M.
Weinstein, Arthur
Weisberg, Joel M.
Wells, William C.
Wende, Charles D.
Wilkerson, Susan M.
Wolfson, C. Jacob
Woo, Richard
Yang, Chao Yuan
Zurek, Richard W.

40 Years

Ahmad, Imad A.
Ames, Susan
Audouze, Jean
Baird, Scott R.
Baym, Gordon A.
Benedict, G. Fritz
Benz, Arnold O.

Bopp, Bernard W.
Boyle, Robert J.
Campbell, Donald B.
Canizares, C. R.
Carney, Bruce W.
Chromey, Frederick R.
Condon, James J.
Corey, Brian E.
Corwin, Jr., Harold G.
Craine, Eric R.
Dravins, Dainis
Erskine, Fred T.
Gaffey, Michael J.
Gottesman, Stephen T.
Gregory, Philip C.
Groth, III, Edward J.
Harper, Doyal A.
Harvey, Paul M.
Hauser, Michael G.
Henry, J. Patrick
Herbst, William
Holst, Tom G.
Ingersoll, Andrew P.
Israel, Martin H.
Itoh, Naoki
Jones, Thomas W.
Joss, Paul C.
Kennedy, John E. D.
Keyes, Charles D.
Kutner, Marc L.
Light, Edward S.
McCarthy, Jr., Donald W.
McConnell, John C.
Morris, Mark
Mufson, Stuart
Noerdlinger, Peter D.
Oegerle, William R.
Onello, Joseph S.
Pelling, Michael R.
Pipher, Judith
Primini, Francis A.
Richstone, Douglas O.
Sandel, Bill R.

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Member Anniversaries continued

Schreier, Ethan J.
Simpson, Janet P.
Smith, Edward J.
Smith, Jr., Haywood
Smith, Howard Alan
Soifer, B. Thomas
Tananbaum, Harvey
Twigg, Laurence W.
White, R. Stephen
Wickes, William C.
Willner, Steven P.
Willson, Lee Anne M.
Wingert, David W.
Wysocki, Mark W.
Yahil, Amos

45 Years

A'Hearn, Michael F.
Altenhoff, Wilhelm J.
Anderson, John D.
Arons, Jonathan
Ball, John A.
Bardeen, James M.
Basart, John P.
Becklin, Eric E.
Benson, Neil A.
Bradt, Hale Van Dorn
Cassinelli, Joseph P.
Chupp, Edward L.
Conklin, Edward K.
Conner, Jerry P.
Davis, Michael M.
Delsemme, Armand H.
Dickinson, Dale F.
Dixon, Robert S.
Donivan, Jr., Frank F.
Durney, Bernard
Evans, Charles D.
Evans, Nancy Remage
Fenkart, Rolf P.
Fink, Uwe
Fix, John D.
Fukuda, Ichiro
Galatola, A.
Garmany, Catharine D.

Gilman, Peter A.
Hanson, Robert B.
Havlen, Robert J.
Hemenway, Mary Kay
Houck, James R.
Hubbard, William B.
Hull, Anthony B.
Humphreys, Roberta M.
Kawabata, Kiyoshi
Kniffen, Donald A.
Lucke, Peter B.
Marks, Dennis W.
McCammon, Dan
McCray, Richard
Milone, Eugene F.
Molnar, M. R.
Moorhead, James M.
Moos, H. Warren
Morrison, Nancy D.
O'Connell, Robert W.
Oertel, Goetz K.
Page, Arthur A.
Palmer, Patrick
Pasachoff, Jay M.
Ptak, Roger L.
Reynolds, Ray T.
Ross, Hazel E.
Rountree, Janet C.
Rubin, Robert H.
Rybicki, George B.
Rydgren, A. Eric
Sandqvist, Aage
Savage, Blair D.
Seaquist, Ernest R.
Sheeley, Jr., Neil R.
Sher, David
Terrell, N. James
Thorne, Kip S.
Title, Alan M.
Trasco, John D.
Travis, Larry D.
Tully, R. Brent
Verschuur, Gerrit L.
Waddington, C. J.
Wagoner, Robert V.

Webb, David F.
West, Mary Lou
White, Richard E.
Wilson, Thomas L.
Witt, Adolf N.
Wolfe, Arthur M.
Zappala, R. R.
Zuckerman, Ben M.

50 Years

Beckers, Jacques M.
Boyce, Peter B.
Bremenkamp, Victor
Brooks, Clinton
Castor, John I.
Dickel, John R.
Epstein, Eugene E.
Fazio, Giovanni G.
Fisher, Philip C.
Gaustad, John E.
Irvine, William M.
Klemola, A. R.
Kuhi, Leonard V.
McCluskey, George E.
McIlwain, Carl E.
O'Dell, C. R.
Partridge, R. Bruce
Rea, Donald G.
Scheer, Donald J.
Shao, Cheng-Yuan
Sofia, Sabatino
Sparks, Warren M.
Steinlin, Uli
Trafton, Laurence M.
Turner, Kenneth C.
Wampler, E. Joseph
Welch, William J.
Westerhout, Gart
Wilson, Robert W.
Wolff, Charles L.
Wooley, Jon K.

55 Years

Bless, R. C.
Erickson, William C.

Jackson, E. S.
Krause, Helmut G. L.
Landolt, Arlo U.
Liebenberg, Donald H.
Morton, Donald C.
Shane, William W.
Shawcross, William E.
Swenson, Jr., George W.
Tull, Robert Gordon

60 Years

Boggess, A.
Boggess, Nancy W.
Gingerich, Owen
Johnson, Hugh M.
Philip, A.G. Davis
Tifft, William G.
Wehlau, Amelia F.

65+ Years

Carpenter, Martha Stahr
Duncombe, R. L.
Horak, Henry G.
Jaffe, M. W.
Lippincott, Sarah L.
Roman, Nancy Grace
Steel Lillibridge, Helen

Committee on the Status of Women in Astronomy

Laura Trouille, CIERA Postdoctoral Fellow, l-trouille@northwestern.edu

Transforming Cultural Norms

A growing number of universities, government labs, and other institutions have established scientific networking and peer mentoring groups for early career (undergraduate, graduate student, postdocs, and new faculty) women and minorities. These groups provide a promising channel for addressing retention and other equity issues. At the Boston Spring 2011 AAS meeting, the AAS Committee on the Status of Women and the AAS Committee on the Status of Minorities hosted a panel discussion of early, mid, and late-career astronomers and administrators from funding agencies working to maximize the impact of such groups. The session was entitled “*Transforming Cultural Norms: Mentoring and Networking Groups for Women and Minorities*.”¹ The goals of this session were (1) to provide information to the community on how to organize, fund, and ensure the sustainability and institutionalization of mentoring groups and (2) to present examples showing how departments have managed to change the climate so that mentoring and networking groups become accepted as the norm. Our panelists were:

Marcel Agueros: astronomy faculty member and Director of Columbia University’s Bridge to PhD program in the Natural Sciences

Ed Bertschinger: Chair of the MIT Physics department and deeply involved in a number of mentoring, networking, and cultural change initiatives; member of the CSWA

Kim Coble: physics/astronomy faculty member at Chicago State University, a minority serving institution in Chicago; deeply involved in mentoring and pipeline issues

Meredith Danowski: astronomy PhD student and co-founder of Boston University’s women in STEM mentoring and networking program

James Ulvestad: NSF-AST director, head of astro2010 demographics study group; former member of the CSWA

Thank you to all those who attended and contributed to the conversation. We were very pleased to see the mix of men and women in the audience, although there is work to be done in engaging more senior men in these discussions. Our discussion covered a range in topics, of which I have chosen a subset to highlight below².

Connecting to Institutions’ Priorities

A major theme throughout the session was that in order to ensure authentic adoption and long-term success of

mentoring and diversity initiatives, an explicit connection to an institution’s priorities is necessary. Keivan Stassun, audience participant, noted this in a comment early on, as a lesson he learned through experience. This is true for both bottom-up and top-down strategies. As a bottom-up example, Marcel Agueros spoke of obtaining key administrative support for the University of Washington Pre-MAP bridge program³ as a result of Pre-MAP’s goals echoing the university administration’s diversity goals. Meredith Danowski stressed the usefulness of creating an advisory board with department chairs, university deans, and other people of influence for fledgling mentoring groups. Developing this buy-in and leveraging their resources goes a long way in ensuring longer-term sustainability.

As a top-down example, Ed Bertschinger discussed his work as chair of the MIT physics department to develop a clear vision statement with goals that explicitly include scientific excellence and a supportive climate for everyone. He stressed that, “Those are absolutely not in conflict. You can’t have an excellent organization without it being a place where people grow and thrive. If you articulate that statement enough and in enough different ways, in your leadership and through people at all levels, it begins to permeate. People then rise through the organization, taking ownership of and advocating that vision.”

The importance of connecting initiatives to an institution’s priorities led to a discussion of our recent decadal survey. A member of the audience noted that the recommendations of the astro2010 decadal survey did not include any funding for demographic issues. Debra Elmegreen, decadal survey committee member, who was also in the audience, explained that the survey was charged with recommending “instruments, telescopes, observatories, and missions,” not people-related programs - even though people issues often figured in the survey committee’s discussions. Jim Ulvestad felt that an entirely different process should be followed in recommending improvements in the people-related aspects of our profession. “Then you have a set of recommendations that are 1-5 and not 6-10.”

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Transforming Cultural Norms continued

Mentoring Activities as Part of Tenure and Promotion

As part of the discussion on mentoring best practices, one audience member noted the tension we face in wanting to put energy and time into mentoring but not getting credit for it in the tenure and/or promotion process. She criticized that, “In our culture, it’s all about money and publishing.” Ed Bertschinger responded that one way to address this problem is to work to change the tenure and promotion criteria at your institution. He recommended finding out about other institutions’ more progressive policies and using those as peer pressure. At MIT, for example, mentoring activities are included in both tenure review and in salary decisions. On the other hand, Jim Ulvestad pointed out that causing change within an institution can take a long time. He advised that, in the meanwhile, before you put a lot of energy into a project, check whether it can be attached to an aspect of your tenure/promotion review that is formally recognized. If it cannot, then decide whether to participate or not, knowing the consequences. He also noted that NSF is working to make mentoring a norm across the sciences and that review panels do take the new NSF postdoctoral mentoring requirement seriously.

A number of participants also pointed out that mentoring does not only refer to mentoring of early-career astronomers. One audience member wondered about existing programs for mid/late-stage astronomers, when the pool of mentors is small. Jim Ulvestad noted that this can be particularly difficult at institutions without grad students or postdocs, where mentoring is less a part of the culture. A few audience members described programs at their institutions for faculty peer-mentoring across STEM disciplines. Kim Coble commented that the International Working group on Women in Physics (<http://www.iupap.org/wg/wip/>) and their conferences are a great resource for this. Also, the NSF ADVANCE program is supporting a number of initiatives to directly address this issue; see <http://www.portal.advance.vt.edu/index.php/tags/mentoring>.

Jim Ulvestad brought up the issue of the growing number of open fellowships for postdocs. These ‘self-employed,’ early-career astronomers often fall through the cracks in terms of receiving mentoring. He stressed the need to establish clear policies for host institutions and create better safety nets for this group.

These Issues and Initiatives are Relevant to Everyone

The discussion often came back to the theme that these initiatives are beneficial to everyone, not just people

traditionally under-represented in the sciences. As one audience member stated, “We’re talking about work-life balance, bringing children up, taking care of aged parents. These are issues for everyone. Leadership in advocating for issues like this is so important. It helps the efficiency, productivity, and output from everyone.”

Ed Bertschinger throughout the discussion stressed the importance of senior astronomers setting an example. “Leadership in an organization is crucial to nurturing an inclusive climate.” He also warned that changing department culture is not just a matter of waiting until the next generations of astronomers are in positions of leadership. He noted, “Early-career astronomers are not necessarily more progressive with respect to these issues.” Culture change requires leading by example and providing on-going education at all levels on why these initiatives improve the overall quality of our science.

Related to this was a discussion on developing buy-in among more senior leadership for improving family leave policies for graduate students and postdocs. In response, we are now leading a multi-pronged effort to (1) document existing family leave policies and (2) assess community support for improving these policies. Please visit <http://faculty.wcas.northwestern.edu/aaron-geller/petition/index.php> to participate in our petition and visit <http://www.astrobetter.com/wiki/tiki-index.php?page=Leave+Policies> for our wiki of current family leave policies at different U.S. institutions.

Additional Resources

At the Boston session, we distributed a resource page, now posted at http://faculty.wcas.northwestern.edu/trouille/Trouille_at_CIERA/CSWA_mr.html. Among the resources listed are the existing masters-to-PhD bridge programs like Columbia’s, the Fisk-to-Vanderbilt program, and University of Washington’s Pre-MAP program and successful mentoring toolkits and advice packages developed by the National Postdoctoral Association, MIT, University of Washington, UW-Madison, the Association for Women in Science, and MentorNet. Also listed are studies and initiatives supporting work-life balance, with specific advice on how to promote family-friendly policies at your institution. Another particularly useful resource listed is the newly revamped NSF ADVANCE Portal (<http://www.portal.advance.vt.edu/index.php/search>) search engine. NSF ADVANCE funds programs developing systematic approaches to increasing the

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Transforming Cultural Norms continued

representation and advancement of women in STEM. These include mentoring, diversity and equity, and work-life balance initiatives. It is a useful resource for generating ideas on specific steps you can take at your institution and existing programs to use as stepping-stones.

A final set of resources for those interested in forming a women in astronomy mentoring and networking group at their institution are Meredith Danowski's postings on the CSWA blog (<http://womeninastronomy.blogspot.com>⁴). Her posts describe the steps they followed to create GWISE (<http://www.bu.edu/gwise/>), the Boston University graduate women in STEM mentoring and networking group. These include forming an advisory board of department chairs and deans to develop larger-scale buy-in, access financial and administrative support, and promote the longevity of the program, taking advantage of existing groups (like the local Association for Women in Science chapter) to lessen the burden on individual leaders, and the importance of including male colleagues in the conversation and in creating professional development events for all graduate students.

The AAS Committee on the Status of Women in Astronomy website (www.aas.org/cswa) hosts a growing list of resources and advice on topics including the two-body problem, work-life balance, sexual harassment, and mentoring. Also, please visit our blog (<http://womeninastronomy.blogspot.com>) and Facebook page. We welcome your ideas, comments, and suggestions.

¹This session built on a series of previous CSWA and CSMA sessions on mentoring; see <http://csma.aas.org/events.html>.

²For our video recording of this special session, please visit http://faculty.wcas.northwestern.edu/trouille/Trouille_at_CIERA/CSWA.html

³Pre-MAP prepares a diverse body of students for the astronomy major. Significant emphasis is placed on community building. At the core of the program is a semester-long seminar, which provides programming and other research skills training, as well as an authentic research experience with a faculty mentor.

⁴To find her postings, type 'Danowski' in the search bar at the upper-left of the <http://womeninastronomy.blogspot.com> website.

Committee on Employment

Liam McDaid, mcdaidl@scc.losrios.edu

Empire Building and its Discontents

It has been said that the model of academic science practiced in the US is unsustainable, because there will always be many more highly trained people than there will ever be academic jobs. This is probably true and has been since the mid-twentieth century. Perhaps the only time it was not true was during the *Apollo* mission. Yet there is another clear truth: few PhDs in physics and astronomy are unemployed. A recent survey taken *after* the 2008 Financial Collapse makes this clear for physics PhDs (4% unemployment): <http://www.aip.org/statistics/trends/reports/phdinitial.pdf>. For physics MSs, the unemployment rate is 1% higher: <http://www.aip.org/statistics/trends/reports/mastersinitial.pdf>. Although academic jobs make up a minority of jobs that are out there and even allowing for the uncertainties such surveys

as this contain, clearly the vast majority of recent graduates are working. The number of astronomers is lower than the number of physicists, but there is no reason to suspect the numbers are very different from those in physics. In the present economy, that is almost miraculous—the city I live in presently has an unemployment rate over 15%. In one sense, having these degrees is advantageous compared to not having them and some may say, referring to the data, that everything is fine and the present crisis should not be extrapolated into the future.

An immediate objection to such an affirmation of the status quo is that many of the employed will not be

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Empire Building and its Discontents continued

working directly (or at all) in the field that they have trained in for so long. This cannot help but contribute to any bitterness felt by postdocs or graduate students about their prospects as they carry on in the finest British style. Yet, there is a bigger question: is the present Big Science academic model sustainable? Any biologist can quote Malthus or Darwin to the effect that continuous growth is not sustainable over the long term, but does it apply? There is an almost casual assumption that technology is a major factor in economic growth. In terms of growing food, there is a clear and demonstrable connection, but what about growing grad students? If there is no fertile soil to take root in, are the spawn of academic empire the economic equivalent of weeds? This article pertains to the humanities specifically and refers to grad student “birth control”: <http://www.thenation.com/article/160410/faulty-towers-crisis-higher-education>. Since it has been hard for PhDs to get jobs in those fields for decades, it seems strange that humanities professors have taken so long to respond to this crisis for prospective job hunters—but they finally are. Even at places like Yale.

Scientists may feel a bit smug at this point—we all knew philosophy or political science majors in college. Such fields were crowded thirty years ago, and few had realistic expectations of top tier academic jobs then. However, humanities students in such disciplines have been aware for decades of the employment sword of Damocles hanging over their futures. Ironically, many physics PhDs in the last decade saw where the money was and moved into Big Finance and became quants. There, they created the financial equivalent of perpetual motion machines, which ended about as well as expected. These instruments were mostly animation, with little direct (or in some cases even indirect) financial mapping to the physical world. Indeed, Big Finance shares many systemic flaws with Big Science.

Growth in science, no matter how modest—forget empire building, may become impossible in the not distant future for two reasons: increasing demands for justification by funders and the outsourcing of research to the public. Science is not used to justifying its existence to policymakers. I don’t refer to justification for this proposal or that project. I mean the justification of funding, period. In today’s chilling political climate, this should disturb us all. Astronomy compared to other sciences has had an easier time due to being the sexy science and an overwhelming majority of Americans enjoy and support it. The packed general-ed astronomy classes across the nation

as well as ever growing TV programming about astronomy testifies to the broad and deep appeal our discipline has. Astronomers have been able to coast compared to the National Endowment for the Arts, for example. This is likely to change, because while astronomy will not lose its strong base, it may be viewed by policymakers as “optional” or an expensive luxury in tough times. This is especially bad in that there are few astronomers deft at justifying funding in the abstract. As an experiment, try coming up with such justification without sounding like the people in this video from 0:15 to 0:40 seconds: <http://www.youtube.com/watch?v=Csj7vMKy4EI>. It’s harder than it sounds. Those few good justifiers will be very busy over the next decade.

The second problem viewed askance may seem more help than harm: the automation of data collection. Not robot probes or telescopes, but the crowdsourcing of data gathering. Programs such as Galaxy Zoo, Moon Zoo, SCOPE, Planethunters, Icehunters and Solar Stormwatch are many, their popularity very high. Many people have been waiting for the chance to participate meaningfully in astronomy without decades of training and their time has finally come. Even with the limited training that such programs give the participants, the number of people is so vast that more things will be discovered than ever before. This may make one think this will have no impact on the job market for professional astronomy, but I recall many claims made in the 90s that IT and computer network jobs were the future and would never be outsourced. Although there will doubtless be issues of quality control with the crowdsourcing of data, any potential cost savings will be noticed by those who pay the bills. Further, there are many professional astronomers who live in lands with limited research resources—until now. The future of Big Science may well be cheaper, more widely distributed channels of research. Call it Wide Science.

The AAS Committee on Employment is pleased to highlight useful resources for astronomers, and welcomes your comments and responses to this and previous columns. Check out our website (www.aas.org/career/) for additional resources and contact information for the committee members. We are always looking for guest columnists in non-academic careers. If you are willing to contribute, or have an idea for a future column, please contact the Employment Column Editor, Liam McDaid (mcdaidl@scc.losrios.edu). The AAS committee on employment exists to help our members with their careers. Your ideas are important, so let’s hear them!

Agency News

News from the Astronomical Society of the Pacific (ASP)

James Manning, Executive Director

Bringing the Cosmos into the Classroom

What teacher among us, confronted by a bored Psych major slouched in the front row of our Astronomy 101 class (taking the last formal science class he or she may ever take in their natural lives and just looking for a passing grade to fulfill requirements), has not wondered about where on earth (or in heaven) to find that spark of potential in so inauspicious a beginning.

Ah, but that is the challenge of good teaching: to create understanding, an improvement of mind and skill, even enthusiasm is the unlikeliest of situations.

According to sources, a quarter of a million non-science majors cycle through Astro 101 courses each year in the U.S. alone. And while they may not be destined for careers requiring telescope time or forays into string theory, many will become teachers, all will become taxpayers and potential voters, and a lucky few will end up as politicians. The degree to which we can send these many thousands off at the end of the semester with enhancements in skills like critical thinking, greater understanding of science and the process of science, and changed attitudes about its importance and value, may not only benefit the students, but may well help to determine the fortunes of science in the public arenas of the future.

Every third year, the Astronomical Society of the Pacific (ASP) provides encouragement and professional development for astronomy instructors in addressing these issues by convening the “Cosmos in the Classroom” national conference. Under the expert husbanding of Andrew Fraknoi, several hundred introductory astronomy instructors from around the country and beyond gather to share experiences, learn from their peers, and hear and see demonstrated the latest thinking in education research and about how to achieve the greatest positive impact with their students. One of the results of these conferences is the publication of contributed papers and materials shared during the proceedings, for the reference of attendees and the benefit of those unable to attend.

The ASP has released the compendium resulting from the most recent Cosmos national conference, held in Boulder, Colorado in the summer of 2010. The 350-page volume

gathers 80 contributions of papers, handouts and resources from more than 100 authors, including many current movers and shakers in astronomy teaching and education research. The publication, edited by Andrew Fraknoi, is published in handy CD form, allowing for the convenient viewing and printing of selected sections as needed. Among the useful topics addressed, whether for the novice or the veteran instructor seeking to improve or vary their teaching techniques, are:

- Questions to Ask on the First Day of Astronomy 101
- The Development of a Solar System Concept Inventory
- Tips for Successful Clicker Use
- A Guide to Teaching Your First Astro 101 Course (19 pages)
- Think-Pair-Share, Lecture-Tutorials, Ranking Tasks and Other Techniques for Engaging Students
- Tricks for Effective Classroom Management
- On-line Homework/Tutorial Systems and Other Tools
- A New Course in Cultural Astronomy
- Understanding and Debunking Doomsday 2012
- Resources for Connecting Astronomy with Other Fields
- Harnessing the Power of Web 2.0
- The Origin of the Drake Equation (by Frank Drake)
- How to Create a Podcast or Vodcast
- What to Leave Out of Astronomy 101
- The Challenge of Constructing Student Learning Outcomes.

The full table of contents can be viewed at <http://www.astrosociety.org/cosmos/>, and ordering information can be obtained at <http://astrosociety.org/astroshop/index.php?p=product&id=592&parent=1>.

This volume and its predecessors distill the wisdom of experience into useable strategies and aids in bringing the cosmos into the classroom in ways that may even engage the bored Pysch major in the front row, and get him or her thinking and learning in useful ways. Check it out. And thanks to all of those who contributed their wisdom to the publication.

News from NSF Division of Astronomical Sciences (AST)

Jim Ulvestad, Division Director, julvesta@nsf.gov

AST Portfolio Review

The AST Portfolio Review is well under way. At the January AAS Meeting, much of the NSF Town Hall will be devoted to the portfolio review process and the rationale for carrying it out, although no discussion of results can take place until the committee has completed its work and produced a report. We anticipate that we will be producing short one-two page documents on our budget breakdown and budget projections, which explain the rationale behind the review; we will make these available to the community on our web site and at the AAS meeting. As a reminder, the mailbox for community input will remain open until 31 January 2012. Participation in various blogs and surveys that are under way DOES NOT constitute input to the Portfolio Review Committee; individuals or groups wishing to provide comments should use the direct input mechanism instead. For information on the portfolio review, including a description of how to send comments, and discussion of the types of input that will be most helpful, please see http://www.nsf.gov/mps/ast/ast_portfolio_review.jsp.

FY 2012 AST Budget

In November, House and Senate conferees passed a Fiscal Year 2012 (FY 2012) funding bill from the Commerce, Science, and Justice subcommittees, providing funding for the full year for NSF. Somewhat surprisingly, the final budget allocated to NSF was higher than either the House or the Senate had reported out in their original bills, and resulted in an increase of approximately 3% for the NSF from 2011 to 2012. This is an encouraging signal for the NSF as a whole, and for the importance of fundamental research as a national priority. Given current priorities within the NSF, we expect that the Division of Astronomical Sciences will fare less well than the average across the NSF; in any case, the expected budget will be far less than that assumed in decadal survey planning. An operating plan for the entire NSF is under preparation for submission to Congress, and we expect that the final AST budget for FY 2012 will be known in February.

American Recovery and Reinvestment Act

Many NSF awards in FY 2009 received funding provided by the American Recovery and Reinvestment act (ARRA). A recent directive (M-11-34) from the Office of Management and Budget instructs NSF and other federal agencies to ensure that grantees complete ARRA projects by 30 September 2013. (Please see <http://www.whitehouse.gov/sites/default/files/omb/memoranda/2011/m11-34.pdf> for the actual memo.) The directive affects a relatively small number of awards in AST. For all ARRA awards, NSF will modify the grant terms and conditions so that the awardee institutions may not receive no-cost extensions beyond 30 September 2013. AST has been working to notify principal investigators of such awards about the impending changes in the grant conditions in advance of formal word from NSF. PIs should work with the managing program officer for their ARRA award(s) and begin steps to accelerate these projects, as allowed by NSF spending rules, in order to ensure their timely completion.

Rotator Positions Available

AST expects to have two or three program officer positions available beginning in August/September 2012. These would be filled by “rotators” from their home institutions, typically for periods of up to three years. Please see the AAS Job Register posting #41056 for application information; applications will be considered beginning in February. We encourage potential applicants to contact any program officer in AST for further information.

News from Arecibo Observatory

Zaven Arzoumanian, Director of Astronomy, Arecibo Observatory

New Management

On 1 October 2011, the National Science Foundation (NSF) turned over management and operation of the National Astronomy and Ionosphere Center (NAIC) to a team led by SRI International (Menlo Park, CA). Rounding out the Arecibo Management Partners are the Universities Space Research Association (USRA; Columbia, MD) and Universidad Metropolitana (UMET; San Juan, PR) of the Ana G. Méndez University System. The new management team thanks Cornell University for its commendable stewardship of NAIC and Arecibo Observatory (AO) over nearly 50 years, and for its gracious cooperation during the management transition.

Dr. Robert Kerr is the new Director of NAIC. Assisting Dr. Kerr are the following discipline directors:

- Dr. Zaven Arzoumanian, Astronomy
- Dr. Sixto González, Space and Atmospheric Sciences
- Dr. Michael Nolan, Planetary Sciences
- Dr. Juan Arratia, Education and Public Outreach

Since 1 October, the Observatory has continued to function as before: all observing programs approved prior to the transition continue to be scheduled for telescope time, the Ionospheric Modification Facility project continues apace, and users are collecting data and receiving staff support as before. Except for a handful of retirements and other anticipated departures, most of the Observatory staff is unchanged. Proposals received for the 3 October 2011, deadline have been evaluated and notifications to the proposers are imminent. In many ways, AO remains the beloved observatory with which its loyal users are familiar. The new management's vision for AO builds on its celebrated strengths in research and education, with the specific objectives of expanding the Observatory's user base, reaching out internationally, and ensuring that AO remains a discovery engine well into the future.

Sadly, AO's daunting budgetary challenges are also still with us, and the NSF's recently convened Portfolio Review represents a significant new test. Please see below—Arecibo needs your help!

NSF AST Portfolio Review

What science would you like to be doing with AO in 2025?

As described here, http://www.nsf.gov/mps/ast/ast_portfolio_review.jsp, NSF's Division of Astronomical Sciences (AST) is evaluating, "within the limitations of realistic future budgets," the relative merits of its existing facilities, programs, and activities, specifically in the context of their relevance to the Astro2010 Decadal Survey's stated scientific priorities. This Portfolio Review is already underway.

The Review Committee is accepting community input in the form of comments or documents not longer than five pages, formally due 31 January 2012. It is critical that Arecibo's users and supporters provide input to the Committee, describing their science and its relevance to Astro2010, preferably much sooner than 31 January as the Committee has already begun its deliberations.

We also urge all astronomy and planetary radar users to contact us, if you have not already done so, to inform us of the contents of your individual submissions to the Review. If possible, please send us copies of your comments to the Review Committee. Astronomy users should contact Zaven Arzoumanian (zaven@naic.edu) and Planetary Radar users should contact Mike Nolan (nolan@naic.edu).

Over the past several years, tremendous effort has gone into maintaining AO's viability despite drastically reduced NSF AST support. It would be tragic to see this iconic, world-class facility—the most sensitive radio telescope in the world—suffer further debilitating cuts. Arecibo Observatory is counting on your support!

New Semester-based Proposal Cycle

AO has for many years accepted observing proposals on a trimester schedule, with submission deadlines on or about 1 February, 1 June, and 1 October. Prior to the management transition, NAIC contemplated a change

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News from Arecibo Observatory continued

to a semester schedule; this idea has been sanctioned by the new management, and will be implemented for all future proposal deadlines.

The new semester-based submission deadlines will be on or about 1 March and 1 September. Proposals will be evaluated during a four-month period following each deadline, and accepted proposals will remain active and eligible for scheduling during the subsequent eight months (just as they currently are). Because of the transition from a trimester to a semester cycle, the next call for proposals, for submissions due 1 March 2012, presents a slightly special case: to avoid any possibility of a shortage of active observing programs of high merit during the month of July 2012, the evaluation period for

proposals received in March will be accelerated so that it is completed in three months instead of four, and approved proposals will be active for nine months instead of eight. The call for proposals announcing the March 2012 opportunity will remind proposers of the need, should it be relevant, to plan for an extra month of observing.

The new semester-based schedule offers several advantages including reduced burden on Observatory staff and alignment, with a one-month delay, with the new semester-based cycle at NRAO.

AO especially welcomes new users (<http://www.naic.edu/scientific.php>) and encourages experienced users to serve as external proposal reviewers.

Washington News continued

Washington a part of every scientist's professional and academic career. The American Astronomical Society rises to the challenge by starting a new initiative called Communicating With Washington.

The Council of the AAS has allocated funds to enable AAS members to participate in Communicating With Washington. As a volunteer you will 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, 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.

We have already received an overwhelming response from volunteers and will start the new year by making regular visits to policy makers. Check the emails from AAS for updates on how you can participate.

New Year's Resolution For Me: To Always Advocate for Astronomy

Thank you for a wonderful year serving you. I feel honored and blessed to be able to represent the astronomical community and pursue my passion for astronomy and public policy.

The past year has been challenging as we listened to the debates on federal spending cuts and austerity measures in other countries. We have overcome our own funding challenges with the James Webb Space Telescope, the restart of domestic production of Plutonium-238, and initiating the priorities of all of the astronomical decadal surveys to preserve balance within the discipline. I look forward to the challenges of the New Year.

My term as the John Bahcall Public Policy Fellow will wind down by the end of 2012. However, I will always be proud of our community, of the science we do and of being an astronomer. I resolve to always be an advocate for astronomy no matter what new opportunities may come my way.

Announcements

International Research Experience for US Graduate Students (IRES)

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

The program supports up to six summer research positions for eight weeks starting 13 June 2012 (this start date is firm). For each participant, the program will provide a stipend of US \$500 per week, round-trip air travel to/from India, accommodation, miscellaneous travel (field trips), incidental expenses, and medical expenses/insurance.

Additional information and application materials are available on the Web at <http://eo.nso.edu/ires/>. All application materials must be received by 31 January 2012.

NSO Observing Proposal Deadline 15 February 2012

The current deadline for submitting observing proposals to the National Solar Observatory is 15 February 2012 for the second quarter of 2012. Information is available from the NSO Telescope Allocation Committee at P.O. Box 62, Sunspot, NM 88349 for Sacramento Peak facilities (sp@nso.edu) or P.O. Box 26732, Tucson, AZ 85726 for Kitt Peak facilities (kptac@nso.edu). Instructions may be found at <http://www.nso.edu/general/observe/>. A web-based observing-request form is at <http://www2.nso.edu/cgi-bin/nsoforms/obsreq/obsreq.cgi>. Users' Manuals are available at <http://nsosp.nso.edu/dst/> for the SP facilities and <http://nsokp.nso.edu/> for the KP facilities. An observing-run evaluation form can be obtained at ftp://ftp.nso.edu/observing_templates/evaluation.form.txt.

Proposers are reminded that each quarter is typically oversubscribed, and it is to the proposer's advantage to

provide all information requested to the greatest possible extent no later than the official deadline. Observing time at National Observatories is provided as support to the astronomical community by the National Science Foundation.

The DAO Opens Up a New Dimension for Long Time-Domain Astronomy

Not to be outdone by the excellent strides currently being made by Harvard to create on-line access to their enormous volumes of photographic images, the Herzberg Institute of Astrophysics (DAO) in Victoria has commenced scanning its not insignificant collections of photographic stellar spectra. Dating back to 1918 (Plaskett collection) and to 1962 (McKellar collection), the archive numbers 93,517 and 16,824 plates per collection, respectively. Most of the Plaskett spectra were taken with a prism spectrograph, though later ones had the benefit of a grating, with plate dispersions near 10 Å/mm. The McKellar spectrograph is exclusively a coude instrument, giving a top plate dispersion of ~2.4 Å/mm.

Scanning is carried out with the in-house PDS, recently upgraded to cope with large volumes of data accurately at moderately high speed. Wavelength and photometric calibrations are performed on all scans, resulting in 1-D spectra in the arc rest-frame; the FITS headers include the heliocentric corrections.

Details of the processes, and examples of some of the plates, can be found at <http://cad.c.hia.nrc.gc.ca/dao/pa.html>.

The McKellar log-books are currently being keyed in manually to make them searchable on-line, but are not yet in the public domain. There is unfortunately no on-line listing of the contents of the Plaskett collection.

For queries regarding the plates in the DAO collections, please contact Elizabeth Griffin (email: elizabeth.griffin-at-nrc.gc.ca) in the first instance, with copy to David Bohlender (david.bohlender-at-nrc.gc.ca).

2012 Carnegie Observatories Graduate Research Fellowship

We announce the continuation of the Graduate Research Fellowship at the Carnegie Observatories in Pasadena, California. This Fellowship provides a stipend to

Announcements continued

graduate students interested in carrying out all or part of their thesis research under the supervision of a Carnegie Staff member, in residence at Carnegie. We encourage applications from current Ph.D. graduate students in astronomy from an accredited (US or non-US) university, pursuing thesis research in observational astronomy, theoretical astrophysics, or instrumentation development. The student must have completed all requisite coursework and examinations prior to arriving at Carnegie. The Fellowship, beginning in September, 2012, will be awarded for one year and may be renewed for two additional years. Foreign students should note that Carnegie can only consider applicants who hold or are eligible to obtain a J-1 visa.

Carnegie Observatories provides a vibrant environment for vigorous scientific research and academic excellence. Major areas of research include cosmology and the distance scale, physics of active galactic nuclei, searches for massive black holes, galaxy formation and evolution, galaxy groups and clusters, intergalactic medium, star formation, supernovae, star clusters, and nucleosynthesis and chemical abundances of stars.

Carnegie observing facilities at Las Campanas Observatory in Chile include the two 6.5-meter Magellan telescopes, the 2.5-meter du Pont telescope, and the 1.0-meter Swope telescope. In addition, the scientific Staff actively pursues research using a wide range of ground-based and space-based facilities, across the electromagnetic spectrum from radio to X-rays.

The application should include a curriculum vitae, bibliography, brief essay describing the applicant's current research, research proposal based on a project sponsored by a Carnegie Staff member, transcript of grades, approval letter from the department head of the applicant's home institution, and three letters of reference. Applications are due by 15 April 2012, 17:00 PST. Full details of the program and application instructions can be found at this web site: <http://obs.carnegiescience.edu/gradfellowships/>. Email inquiries may be sent to Dr. Luis Ho at gradfellowships@obs.carnegiescience.edu.

More stars. Less light. Participate in GLOBE at Night!

Calling all Earthlings! Take a few minutes to get involved in the GLOBE at Night campaign to preserve dark skies! GLOBE at Night is a citizen-science campaign open to people all over the world to raise awareness of the impact of light pollution by inviting citizen-scientists to measure

their night sky brightness and report their observations to a website from a computer or smart phone. Light pollution threatens not only our "right to starlight", but can affect energy consumption, wildlife and health. Through 2011, people in 115 countries contributed 66,000 measurements, making GLOBE at Night one of the most successful light pollution awareness campaigns to date. Please participate in the 2012 campaign an hour after sunset til about 10pm 12 February through 21, 13 March through 22, and 11 April through 20. For information and resources, visit www.globeatnight.org.

The 2012 AIP Science Communication Awards

Entries are requested for the 2012 American Institute of Physics (AIP) Science Communication Awards, which recognize effective science communication in print, broadcast, and new media in order to improve the general public's appreciation of physics, astronomy, and allied science fields.

Winners will receive a prize of \$3,000, an engraved presentation piece, and a certificate of recognition. The publisher of the winning entries will also receive a certificate of recognition.

Candidates may nominate their own work or be nominated by someone else. This year, entrants can compete in the following three categories:

- Science writing
- Children's writing
- New media

Candidates must specify the category in which they are competing for each submitted work. No more than three entries may be submitted by a single author or group of authors per year. Authors may elect to have multiple (up to three) submissions judged as a single entry if they are part of a coherent story arc. Collaborative efforts on a single project will be considered a single entry, and prize money will be split accordingly.

Entries must be postmarked or received by 17 February 2012.

For more information or to submit an entry, contact Jennifer Lauren Lee at media@aip.org or visit <http://www.aip.org/aip/writing/>.

Washington News

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



New Year's Resolutions

As an old year ends, and a new year begins we often reflect on the past year and plan for the future. New Year's Resolutions are often a way to promise ourselves we will do better than the previous year. My resolutions are usually the generic assortment of being healthy and happy. However, 2012 is going to be a fascinating year for politics, the AAS, and for me. I have thought of a few specific resolutions for 2012.

New Year's Resolution For Congress: Pass an Actual Appropriations Bill

Congress has not passed a regular appropriations bill since the FY 1995 when President Clinton was in his first term and the Democrats had the majority in both the House and the Senate. Since then, the government has been funded by continuing resolutions (CR), that allow the government to run at the previous year's funding levels, or by an omnibus bill, which packages all 13 of the appropriations bills into one large spending bill. Recently, a new trend has started called a minibus, which packages a smaller amount of appropriations bills into one spending bill.

Each of the twelve Appropriations Subcommittees, in both the House and Senate, are supposed to individually produce a bill that reaches the President (the thirteenth bill is for the District of Columbia). A bill should first be debated in the House subcommittee before it is debated on the House floor. Once it passes the House it goes to the Senate, where they debate the bill. If the bills do not agree then both chambers meet in conference to negotiate final allotments. The conference bill goes back to both the House and Senate floor for a final vote before it reaches the President. This process allows ample time to debate.

Omnibus, minibus, CR bills, and their many different combinations, can expedite the completion of appropriation bills by reducing the number of votes and the number of opportunities for a presidential veto. The deadline for appropriations bills is September 30th of each year. A CR is required to continue funding the

government beyond the deadline. However, combining uncompleted appropriations, that have not received time on the floor of one or both chambers, into one single bill makes it possible to avoid debate and include controversial amendments that would not normally pass.

New Year's Resolution For AAS Members and US Citizens: Register To Vote

This year, 2012, is an election year when you can exercise your right to vote or not to vote. The United States Constitution says that the right of any citizen of the United States, who is eighteen years of age or older, to vote shall not be denied or abridged by the United States or by any State.

There are already many Republican presidential candidates vying to be the party choice. I usually hear, whoever is chosen to run against President Obama, that voting for the president can feel like making a choice of the lesser of two evils and often people choose not to vote. If you choose not to vote, at least register to vote so that your choice can be counted.

Get to know what will be on the ballot. You may not like any of the candidates for presidency, but you can vote for other people and initiatives on your ballot. Every two years your candidates for the House of Representatives are up for reelection. You may have a Senatorial race, state and local government officials and other ballot initiatives on local taxes or education.

Visit <http://www.vote411.org> for election information including registration and what is on your ballot.

New Year's Resolution For AAS: Bring More Astronomers to Advocate in Washington

Staff on Capitol Hill, the White House, and Congress often lament that they do not hear enough from scientists and researchers who depend on federally funded research on the importance of science and their research to the Nation. The challenge is to make communicating with

continued on page 16

Calendar of Events

AAS & AAS Division Meetings

43rd Annual DDA Meeting
6-10 May 2012, Mt Hood Oregon
<http://dda.harvard.edu/meetings/2012/>

220th AAS Meeting
10-14 June 2012, Anchorage, AK
<http://aas.org/meetings/aas220>

44th Annual DPS Meeting
14-19 October 2012, Reno, NV
<http://dps.aas.org/meetings/>

Other Events

Science with a Wide-field Infrared Telescope in Space
(held in tandem with the 16th International Conference on Gravitational Microlensing)
13-15 February 2012, Pasadena, CA
wfir2012@ipac.caltech.edu
<http://www.ipac.caltech.edu/wfir2012/>

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

16th International Conference on Gravitational Microlensing
(held in tandem with the Science with a Wide-field Infrared Telescope in Space)
15-17 February 2012, Pasadena, CA
wfir2012@ipac.caltech.edu
<http://www.ipac.caltech.edu/wfir2012/>

***Workshop on Solar Statistics**
16-17 February 2012, Cambridge, MA
Vinay Kashyap
(vkashyap@cfa.harvard.edu)
<http://hea-www.harvard.edu/AstroStat/SolStat2012/>

Outflows, Winds and Jets: From Young Stars to Supermassive Black Holes
3-6 March 2012, Charlottesville, VA
<https://science.nrao.edu/facilities/alma/naasc-workshops/jets2012>

Turbulence in Cosmic Structure Formation
5-8 March 2012, Tempe, AZ
cosmicturbulence2012@gmail.com
<http://cosmicturbulence2012.events.asu.edu/>

***SnowPAC 2012: Gravitational Lensing in the Age of Survey Science**
19-23 March 2012, Snowbird, UT
Adam Bolton (bolton@astro.utah.edu)
<http://snowpac2012.astro.utah.edu/>

***The Mass Loss Return from Stars to Galaxies**
28-30 March 2012, Baltimore, MD
<http://www.stsci.edu/institute/conference/stellar-mass-return>

***The Faint Early Sun: Problem, paradox, or distraction ?**
9-10 April 2012, Baltimore, MD
David Soderblom (drs@stsci.edu)
<http://www.stsci.edu/institute/conference/faint-sun>

***Solar Origins of Space Weather and Space Climate: Connecting the Interior to the Corona**
NSO Workshop #26
30 April-4 May 2012, Sunspot, NM
<http://www.nso.edu/general/workshops/2012/>

***HEDLA2012: 9th International Conference on High Energy Density Laboratory Astrophysics**
30 April-4 May 2012, Tallahassee, FL
info@hedla2012.org
<http://www.hedla2012.org/>

***2012 STScI May Symposium: Gas Flows in Galaxies**
7-10 May 2012, Baltimore, MD
Andrew Fox (afox@stsci.edu)
<http://www.stsci.edu/institute/conference/gas-flows>

***Extreme Space Weather Events**
14-17 May 2012, Boulder, CO
Lierin Schmidt (lierin@predsci.com)
<http://www.predsci.com/meetings/eswe/>

A Window on the Formation of the Milky Way
20 May-10 June, Aspen, CO
<http://www.aspenphys.org/documents/program/summerworkshops2012.html>

***Thirteenth Synthesis Imaging Workshop**
29 May-5 June 2012, Socorro, NM
Amy Mioduszewski
(amiodusz@nrao.edu)
<http://www.aoc.nrao.edu/events/synthesis/2012/>

Non-gaussianity as a window to the Primordial Universe
20 May-10 June 2012, Aspen, CO
<http://www.aspenphys.org/documents/program/summerworkshops2012.html>

***Transiting Planets in the House of the Sun: A workshop on M dwarf stars and their planets**
3-6 June 2012, Maui, HI
maui transit@gmail.com
<http://www.soest.hawaii.edu/GG/FACULTY/GAIDOS/haleakala.html>

***CASCA 2012**
4-7 June 2012, Calgary
loc@casca2012.com
<http://www.casca2012.com>

The Physics of Feedback Processes and their Role in Galaxy Evolution
10 June-1 July 2012, Aspen, CO
<http://www.aspenphys.org/documents/program/summerworkshops2012.html>

***The Origins of Stars and Planetary Systems**

10-15 June 2012, Hamilton, Ontario
Ralph Pudritz
(pudritz@physics.mcmaster.ca)
http://origins.physics.mcmaster.ca/oi_planets/

***The Baryon Cycle**

14-16 June 2012, Irvine, CA
baryoncycle2012@gmail.com
http://www.cge.uci.edu/baryon_cycle.html

The Evolution of Massive Stars and Progenitors of Gamma-Ray Bursts

17 June-1 July 2012, Aspen, CO
Emily Levesque
(Emily.Levesque@colorado.edu)
<http://casa.colorado.edu/~emle6425/aspen/>

***The Great Andromeda Galaxy: A workshop to celebrate Martin Schwarzschild's Centennial**

17-20 June 2012, Princeton, NJ
Tod R. Lauer (lauer@noao.edu)
<http://www.noao.edu/meetings/m31/>

Ultraviolet Astronomy: HST and Beyond

18-21 June 2012, Koloa, HI
James Green
(james.green@colorado.edu)

***Star Formation in Dwarf Galaxies**

19-22 June 2012, Flagstaff, AZ
Deidre Hunter (dah@lowell.edu)
<http://www2.lowell.edu/workshops/dwarfs2012/>

***7th International Conference on Numerical Modeling of Space Plasma Flows - ASTRONUM-2012**

24-29 June 2012, Sheraton Keauhou Hotel on the Big Island, Hawaii
np0002@uah.edu
icnsmmeetings.com

Centenary Symposium 2012: Discovery of Cosmic Rays

26-28 June 2012, Denver, CO
Jonathan F. Ormes
(JFOrmes@comcast.net)
<http://portfolio.du.edu/CR2012>

***Star Formation and Gas Reservoirs in Groups and Clusters**

8-11 July 2012, Schenectady, NY
Rebecca Koopmann
(koopmanr@union.edu)
<http://minerva.union.edu/koopmanr/unionsunconf.html>

X-ray Binaries - Celebrating 50 years since the Discovery of Sco X-1

10-12 July 2012, Boston, MA
xrb12@cfa.harvard.edu
<http://cxc.cfa.harvard.edu/cdo/xrb12/>

2012 Sagan Summer Workshop: Working with Exoplanet Light Curves

23-27 July 2012, Pasadena, CA
sagan_workshop@ipac.caltech.edu
<http://nexsci.caltech.edu/workshop/2012/>

***Rattle and Shine: Gravitational Wave and Electromagnetic Studies of Compact Binary Mergers**

30 July-3 Aug 2012, Santa Barbara, CA
<http://www.kitp.ucsb.edu/activities/dbdetails?acro=chirps-c12>

***Communicating Astronomy: The 124th Annual Meeting of the Astronomical Society of the Pacific**

4-8 August 2012, Tucson, AZ
meeting@astrosociety.org
<http://www.astrosociety.org/events/meeting.html>

Optical Engineering + Applications 2012 - Part of SPIE Optics + Photonics

12-16 August 2012, San Diego, CA
customerservice@spie.org
http://spie.org/Optical-Engineering.xml?WT.mc_id=RCal-OPOW

***Fourth International Fermi Symposium**

28 October-2 November 2012, Greenbelt, MD
Julie McEnery
(julie.e.mcenery@nasa.gov)
<http://fermi.gsfc.nasa.gov/science/symposium/2012/>

***The Pluto System on the Eve of Exploration by New Horizons: Perspectives and Predictions**

24-26 July 2013, Columbia, MD
<http://pluto.jhuapl.edu/conference/>

Structure and Dynamics of Disk Galaxies

12-16 August 2013, Winthrop Rockefeller Institute, Petit Jean Mountain, AR
Marc Seigar (mxseigar@ualr.edu)
<http://astro.host.ualr.edu/conferences/galaxies2013/>

New or revised listings

Note: Listed are meetings or other events that have come to our attention. Due to space limitations, we publish notice of meetings 1) occurring in North, South and Central America; 2) meetings of the IAU; and 3) meetings as requested by AAS Members. Meeting publication may only be assured by emailing crystal@aaas.org. Meetings that fall within 30 days of publication are not listed.

A comprehensive list of world-wide astronomy meetings is maintained by David Bohlender and Daniel Durand in collaboration with the Canadian Astronomy Data Centre, Victoria, BC. The list may be accessed and meeting information entered at <http://www1.cadc-ccda.hia-ihp.nrc-cnrc.gc.ca/meetings/>.