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# AAS Newsletter

A Publication for the members of the American Astronomical Society

# President's Column

John Huchra, president@aas.org

Well well "The times they are a'changin'" (B. Dylan, 1964, followed by almost every paper in the country, November 2008). We are watching massive changes in the direction the new administration is taking with regard to science. Serious prospective appointments are being named almost every day (yesterday's was Nobel Prize winning physicist Steve Chu to head the Department of Energy) by President Obama's transition team. As I write this column, there is an expectation that a real budget for Federal fiscal year 2009 will be passed—not a Continuing Resolution. This is very good news for both the NSF and DOE's Office of Science, but bad news for NASA science and physical science education in the Department of Education. In a turn I did not expect, Obama's transition team have taken a direct and immediate interest in the science agencies plans and operations. We can expect timely changes in leadership, and, in a few cases, reaffirmation of the existing team. I personally hope this is a strong signal of the return of science in appropriately informing legislative and regulatory decisions, something that has not happened for the better part of eight years.

There is a downside for astronomy. We are still not considered an integral part of the competitiveness initiative, despite the strong place astronomy holds in broad science education throughout K-16. The economic downturn coupled with the increase in both the public and governmental interest in climate and sustainability is sure to lead to strong targeted support for Earth science and alternative energy. This is appropriate, or as I like to paraphrase, "Render unto Congress that which is Congresses'," but it will likely hurt those fields less directly related to the immediate societal problem.

There is other good news though. ESA has gotten a very strong vote of confidence from the European ministers who thoroughly supported a 10 billion Euro new spending package and a multi-year 3.5%/per annum increase in the space science budget. This kind of support and long term planning is one of the reasons other countries can get ahead of the US, where the spending for almost every agency and project is approved only year by year.

There is also good news on the science front. I have been incredibly impressed by the latest

exoplanet imaging results. Wow! Fomalhaut! I had not expected to see images of objects orbiting other stars until SIM or TPF flew. The power of adaptive optics and the power of apodization in space won the day. Phoenix was shut down by the Martian winter after finding water on Mars. Fermi is beginning to fulfill its promise with gamma-ray images of the sky. NASA and DOE can indeed work together. Discover magazine has posted its top 100 science stories of 2008. Astronomy captured 12 of the spots with our top slot, #6, going to Phoenix and ice on Mars, followed by Messenger's images of Mercury in the #22 spot, and the link between the Milky Way's central black hole and star formation at #23. Near the tail end of this distribution, at #97, is the IAU's designation of Trans Neptunian Dwarf Planets as "Plutoids." A name I expect that will go down in infamy.

In the same issue is a story about one of my astronomical heroes, Fritz Zwicky. Think about your own careers in astronomy. If you have been lucky, you will have interacted with someone who is a dynamo. Someone spewing forth new and interesting ideas, or fighting the good fight against static science, or building institutions that help us all and advance the field, often against heavy odds. Fritz was one of those, especially in the new ideas and the battling the "high priests" modes.

I was lucky, as a very wet behind the ears grad student, to share office space with his blink comparator in the sub-sub-basement of Robinson Lab at Caltech. While he railed against the senior, often very stodgy, community, he always had a kind and inspiring, and usually insightful word for the young whippersnappers. He taught me to look to the sky for the truth. I miss him.

Finally, I just note that the January AAS meeting kicks off our next Decadal Survey. This one will start with science priorities and use them to produce a program for projects and facilities. It is extremely important that we all be involved. The AAS can help provide venues for input and interaction with the Survey Committee and its panels, but it can not provide input or ideas for new science or new projects. That's up to you, the community. As they say in my home town (Jersey City), speak early and speak often. Go to it!

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Pamela D. Wallace, Meetings Manager

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Items of general interest to be considered for publication in the AAS Newsletter should be sent to crystal@aas.org. Appropriate pictures are welcome. For information about deadlines and submitting articles, see www.aas.org/publications/newsletter.php. Items submitted to the AAS Newsletter are not automatically included in the AAS Electronic Announcements or vice versa. Submit electronic announcement items to crystal@aas.org.

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

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# From the Executive Office

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

This year we will all celebrate the 400th anniversary of Galileo's first studies with a telescope. It is fitting that we also start the next of our field's Decadal Surveys. The astronomers have come together every decade since the 1950s to rank our scientific funding needs and deliver a unified request to our government. Although we used to be nearly unique in carrying out this exercise, other disciplines and even sub-disciplines within our field now carry out more or less the same process. These efforts can only be effective when they represent true consensus. The reports can only represent consensus when everyone participates. Increased participation is a goal of this Decadal Survey and chair Roger Blandford is truly committed to increasing the participation in the process.

The AAS will be supporting the Decadal Survey in several ways. First, our public policy fellow, Marcos Huerta will be attending all public sessions this coming year and keeping the community posted through Informational Emails and his interesting Policy blog (available on the AAS public policy web pages). We will be hosting special activities at the Pasadena meeting coming up this June. The new convention space in Pasadena will be well suited to expanded town hall and other session types as the Decadal Survey committee requests. We will be capturing the sessions in Pasadena and making them available online in a cost effective audio/presentation slide format (along with the prize and invited talks, as we are doing for the Long Beach meeting). Finally, the Committee on Astronomy and Public Policy and the entire AAS Council will be discussing and following the progress of the survey and providing input on behalf of the Society at appropriate times. I am also helping President Huchra with some demographic data and analysis for a portion of the survey report.

The ongoing financial crisis is causing concern for us all. Organizations across the country, including non-profit societies like the AAS are taking actions to reduce expenses in anticipation of reduced revenues. The AAS Council meets at each June meeting to approve the budget for the coming fiscal year (e.g. the 2009 AAS budget was approved at the June 2008 AAS council meeting), but the budget is not a fixed document. As the year progresses we present Council and especially our Treasurer, Peter Stockman, with regular reports on the status of the Society's finances. We tighten our belts as we go along and take every possible measure to only spend when we must. Our largest financial risk continues to be our meetings, where substantial expenses must be offset through registration fees from attendees, who vary in number for opaque reasons from year to year.

I am taking a conservative approach, especially for 2010, and the proposed budget I will present to Council in June will reflect this. However, recession aside, the Society must continue to serve its members' needs. We will continue to publish our journals and to grow them technologically while preserving their content for the longer term. We will continue to organize the annual meetings of the Society to foster communication and collaboration in our field. We will continue to be active in public policy and education, while providing career advice and employment resources to astronomers at all career levels. Finally, we will follow the vision and leadership of the Council, who, as your elected leaders, are ultimately responsible for what the Society is, what it does and its long term financial stability.

The AAS has been here for more than 100 years. We will be here as long as the community we serve, astronomy and closely aligned fields, has a need for the services we provide. Those needs do not fluctuate with the stock market and our level of service will not fluctuate either. The AAS is your Society and I welcome your thoughts and input at any time on any topic. Enjoy the International Year of Astronomy and help celebrate it by reaching out to non-astronomers as you travel this year or in your daily research life. Let's all work together to bring a bit of the wonder of astronomy to our fellow citizens, which in the current financial climate, may be just what we all need to cheer us up a bit.

# **Hubble Status**

# Rodger Doxsey, STScI

With Space Shuttle Atlantis on the launch pad and ready to go, her cargo bay packed with new equipment destined for the Hubble Space Telescope, it was sharply disappointing to all to see Servicing Mission 4 (SM4) delayed. On 27 September there was a failure in the Science Instrument Command & Data Handling (SIC&DH) unit on Hubble. Among other things, this unit is responsible for gathering and routing scientific data from the Hubble instruments to the systems that transmit the data to the ground. The on-board backup SIC&DH was turned on in mid-October and is working properly. However, Hubble now has no further backup capability in this crucial area. One failure in the backup unit, or in associated data system modules, could result in no ability to retrieve science data from the telescope. This situation was apparent the weekend that the failure occurred, and by that Monday NASA Administrator Mike Griffin had made the decision that SM4 should be delayed until a replacement unit with full redundancy could be readied and included in the mission. NASA recently announced a target launch date of 12 May 2009 for SM4.

This unfortunate turn of events has everyone in the HST program scrambling. At the STScI we have been focusing on keeping Hubble busy with a full schedule of observations during the additional seven months before SM4. By October, we had nearly exhausted our pool of WFPC2 and NICMOS observations from Cycle 16, anticipating the start of Cycle 17 and the use of the new Wide Field Camera 3 (WFC3) and Cosmic Origins Spectrograph (COS), and repaired ACS and STIS instruments. The situation was further complicated by an unrelated problem with the NICMOS Cooling System (NCS), which may have failed. This system was installed during SM3B in 2002 and ran continuously, cooling the detectors in the NICMOS to their operational temperature. Barring a future "Eureka!" moment, a final attempt to get the NCS running well enough to re-cool NICMOS will be made on Tuesday, December 16.

[NICMOS update added in press by kbm: NICMOS / NCS Safing Anomaly and Status December 23, 2008

On Friday 19 December 2008, the NICMOS Cooling System (NCS) safed once again, after having been cooling for about 4 days since its restart. The safing event this time was not due to the circulator/compressor loop which had been behaving nominally, but was instead caused by a lower speed limit violation of the Turbo Alternator which helps to maintain the proper flow rate of the Neon refrigerant through one of the three cooling loops. The cause of the lower than expected speed is presently unknown but is under investigation. Over the next week, systems engineers at GSFC will be collecting and analyzing telemetry from this event and past startups. The NCS Anomaly Review Board will then examine the information and make a recommendation on a forward plan of action some time in the first week of the new year. It is presently unclear when NICMOS will be available for science observations, but it is unlikely to be any earlier than mid-late February.]

The STScI has solicited Cycle 16 Supplemental Proposals to select observing programs to fill the bulk of the extra time prior to SM4. A total of 283 proposals were received by the deadline on 8 December. The 60 proposals using NICMOS will be held in reserve until we know whether the NCS will restart. The 223 proposals that do not use NICMOS request over 14,000 orbits of observing time. We expect to select programs that provide ~1200 orbits, so the over-subscription is quite high. A Telescope Allocation Committee (TAC) with 27 members and chaired by Rob Kennicutt has been constituted and the proposals have been sent to them for review. Given the time constraints and the season, the TAC will not meet physically, but will operate electronically and possibly via teleconference. Our goal is to notify selected PIs by 13 January 2009, go through the Phase II process in 2-3 weeks, and start these observations by mid-February at the latest. In the mean time, we have a pool of Astrometry, WFPC2, and ACS/SBC Cycle 16 GO, Snap, and DD programs that will be scheduled. Cycle 16 NICMOS programs will be included, if the NCS works adequately. We have identified two community service DD programs for use in January, especially if the NICMOS cannot be used or it takes a little longer to get the supplemental programs in place. Data from these community service programs will be immediately available to the community via the archive. One will provide WFPC2 F606W and F814W imaging of the central portion of the Lockman Hole (program 11967) and the other will obtain WFPC2 UV images of a subset of galaxies from the Spitzer Space Telescope SINGS Legacy program (program 11966).

Since the SIC&DH failure in September, the engineers, scientists, and managers at the HST Program at Goddard have been working hard to prepare the spare SIC&DH unit for flight on SM4. The hardware has been restored to flight configuration, inspected, and is being completely retested. Records of the assembly, test, and use of the unit since its delivery over 17 years ago have been reviewed to ensure that the equipment is flight worthy. Electromagnetic interference, vibration, and thermal vacuum testing of the spare unit will begin soon. Support equipment is being modified to include the SIC&DH in the cargo carried up to Hubble in Atlantis' cargo bay. The priorities, timelines and procedures for SM4 activities are being modified to include installation and check out of the spare SIC&DH during the first Extravehicular Activity (EVA) day of the mission. Although introduction of the SIC&DH replacement task makes an already full EVA timeline even more packed, in the "best case scenario" it can be included without the need to remove other high priority tasks from the plan. Of course this outcome cannot be guaranteed, but the Hubble Program and the Space Shuttle Program are working toward that objective. The astronauts have started training on the procedures for installing the SIC&DH, which fortunately was one of the telescope systems designed with servicing in mind.

We are all hopeful that a successful SM4 will have taken place by the time of the AAS meeting in June, and that early results from the most capable Hubble ever will be highlights of the meeting in January, 2010.

# Get Involved in IYA

One of the most common—and most important!—questions that we receive about the International Year of Astronomy (IYA) is how people can learn more about and participate in IYA programs. We have created information sheets, with nine different flyers tailored to specific audiences, to answer this "How to Get Involved in IYA" question for:

- ☆ the general public
- ☆ amateur astronomers
- ☆ teachers
- ☆ home schoolers
- **☆** families
- ☆ professors and research scientists

- ☆ grad students
- planetaria, and large observatories and science centers
- small observatories and science centers

These information sheets may be viewed online, as well as downloaded for emailing and printing, at:

http://astronomy2009.us/getinvolved/

Please help us distribute these flyers, either by email or hardcopy, to spread the word about the wide range of opportunities for everyone to get involved in IYA!

# **Announcements**

## Arecibo Call for Proposals—

1 February 2009 is the next deadline for submitting proposals for Arecibo. Proposals submitted at this deadline are for using the 305 m telescope in the eight months beginning 1 June 2009 (i.e. valid for two trimesters).

We draw attention to the 1.1-10 GHz continuous frequency coverage on offer. This capacity was recently used to detect numerous molecular and hydrogen recombination lines from Arp 220 and other ULIRGS, using our WAPP spectrometers that offer a single pixel 640 MHz bandwidth facility (Salter et al AJ 136, 389). We anticipate a 1 GHz bandwidth capacity being available by June. In addition, we commissioned a cryogenic 327 MHz receiver in 2008.

Proposal submission details, and a web-based cover sheet, can be found at http://www.naic.edu/~astro/proposals. A guide for new-users to the telescope is at http://www.naic.edu/~astro/guide. Other user-related information is at http://www.naic.edu/~astro/astronomy.htm.

Radio sources with declinations between about -1 and +37.5 deg are visible from Arecibo, and can be tracked over the range of zenith angles between  $\sim 1.1$  and 19.7 deg.

# **NSO Observing Proposal Deadline**

The current deadline for submitting observing proposals to the National Solar Observatory is 15 February 2009 for the second quarter of 2009. Information is available from the NSO Telescope Allocation Committee at P.O. Box 62, Sunspot, NM 88349 for Sacramento Peak facilities (sp@nso.edu) or P.O. Box 26732, Tucson, AZ 85726 for Kitt Peak facilities (nsokp@nso.edu). Instructions may be found at http://www.nso.edu/general/observe/. A web-based observing-request form is at http://www2.nso.edu/cgi-bin/nsoforms/obsreq/obsreq.cgi. Users' Manuals are available at http://nsosp.nso.edu/dst/ for the SP facilities and http://nsokp.nso.edu/ for the KP facilities. An observing-run evaluation form can be obtained at ftp://ftp.nso.edu/observing\_templates/evaluation.form.txt.

Proposers are reminded that each quarter is typically oversubscribed, and it is to the proposer's advantage to provide all information requested to the greatest possible extent no later than the official deadline. Observing time at National Observatories is provided as support to the astronomical community by the National Science Foundation.

# **Honored Elsewhere**

#### Veilleux Wins 2008 Humboldt Research Award

Sylvain Veilleux (University of Maryland, College Park) received a Humboldt Research Award for Senior U.S. Scientists from the Alexander von Homboldt Foundation on 12 November 2008. This award is given to "outstanding scientists and scholars from all disciplines from abroad whose fundamental discoveries, new theories, or insights have had a significant impact on their own discipline and who are expected to continue producing cutting-edge achievements in the future."

Veilleux, an optical/infrared astronomer whose research focuses on active and starburst galaxies, joined the Maryland faculty in 1995. He is known for his work on the spectral classification of emission-line galaxies, the origin and evolution of nuclear activity driven by upermassive black holes, and the nature of galaxy-scale winds and their impact on the extragalactic environment.

Veilleux will be using this award to undertake research on infrared-selected galaxies in collaboration with Prof. Reinhard Genzel and colleagues at the Max Planck Institute for Extraterrestrial Physics in Garching, Germany.

## Einstein Prize Awarded to Hartle

The 2009 Einstein Prize was awarded to Jim Hartle (University of California, Santa Barbara). The citation reads "For a broad range of fundamental contributions to relativistic stars, quantum fields in curved spacetime, and especially quantum cosmology."

James B. Hartle was educated at Gilman School, Princeton University (AB, 1960), and the California Institute of Technology where he completed a Ph.D. in 1964 with Murray Gell-Mann. He has held positions at the Institute for Advanced Study, Princeton University, and the University of Chicago. He is currently Research Professor and Professor of Physics Emeritus at the University of California, Santa Barbara and an external faculty member of the Santa Fe Institute. His scientific work is concerned with the application of Einstein's relativistic theory of gravity—general relativity—to realistic astrophysical situations, especially cosmology. He has contributed usefully to the understanding of gravitational waves, relativistic stars, and black holes. He is currently interested in the quantum origin of the universe and the earliest moments of the big bang where the subjects of quantum mechanics, quantum gravity, and cosmology overlap. He has been an Alfred P. Sloan Fellow, a NATO Senior Science Fellow, and a John Simon Guggenheim Fellow. He is a fellow of the American Physical Society, a fellow of the American Academy of Arts and Sciences, a member of the US National Academy of Sciences, and a founder and past director of the Kavli Institute for Theoretical Physics.

#### Schechner Wins Hazen Prize

The Joseph H. Hazen Prize Committee of the History of Science Society has awarded the 2008 prize to Sara Schechner, David P. Wheatland Curator of the Collection of Historical Scientific Instruments in the Department of History of Science at Harvard University. Schechner's educational activities have been extraordinarily broad, encompassing many of the categories suggested for the Hazen Prize. She is involved in museum work, the organization of educational programs, writing, innovation in instruction and pedagogical materials, and public outreach. The members of the Prize Committee were impressed with how Schechner "creates hands on experiences with technology from the past, thus giving material and tactile access to the history of science in this way," how she has shown "great creativity and broad outreach in sharing the Collection for Historical Scientific Instruments," and the amount of energy she has devoted "to a great range of successful educational activities in relatively short time frame."

## Member Deaths

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

Ian Bartky Frank Edmondson **Steve Ostro Ed Salpeter** 

## Letters to the Editor

Letters to the Editor on current issues of importance to astronomers are welcomed. Letters must be signed and should not exceed 250 words. Send to Jeff Linsky, Associate Editor, Letters, (jlinsky@jila. colorado.edu; 303-492-7838 phone; or 303-492-5235 fax) one week prior to the AAS Newsletter deadline. Letters may be edited for clarity/length (authors will be consulted) and will be published at the discretion of the Editors.

# Opting In and Out of AAS Publications

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

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

# **AAS Member Anniversaries**

We could not have done it without you! Thank you for your committment to the Society. As we begin 2009 what better time to acknowledge those who have been members of the AAS for 25 years or more. If your name was excluded please contact Crystal Tinch (crystal@aas.org). Members are current as of 1 December 2008. Let us know if you think you re listed incorrectly.

# 25-34 years

Adler, David Ake, Thomas Albert, C. Elise Albrecht, Rudolf Alcock, Charles Alissandrakis, Constantine Allen, Mark Allison, Michael Ambruster, Carol Anderson, Edwin Anderson, Kurt Anthony-Twarog, Barbara Antiochos, Spiro Applebaum, David Apruzese, John Argon, Alice Armstrong, John Arnold, Clifford Athanassoula, E. Augensen, Harry Azzopardi, Marc Baan, Willem Backman, Dana Bahcall, Neta Bai, Taeil Bailey, Wayne Baker, Neal Baldwin, Jack Baliunas, Sallie Bally, John Balonek, Thomas Band, David Bangert, John Bania, Thomas Barbuy, Beatriz Barker, Timothy Barnard, John Barsony, Mary Bartel, Norbert Barvainis, Richard Basri, Gibor Basu, Dipak Batuski, David Bauer, Wendy Bautz, Mark Beall, James Bechis, Kenneth Beck, Sara Becker, Robert

Becker, Stephen

Becker, Walter Beckwith, Steven Beers, Timothy Beichman, Charles Bennett, Philip Bhavsar, Suketu Biermann, Peter Bignami, Giovanni Bignell, Carl Binney, James Birkinshaw, Mark Bjorkman, Karen Blanford, George Bleiweiss, Max Blitz, Leo Blizard, Jane Bogart, Richard Boice, Daniel Bonnet, Roger-Maurice Bord, Donald Boroson, Todd Borucki, William Bosma, Albert Boss, Alan Boughn, Stephen Paul Bowell, Edward Bower, Gary Bradley, Richard Bradstreet, David Branch, David Brasunas, John Braun, Douglas Bregman, Joel Briotta, Daniel Brodie, Jean Brown, Bryan Brown, David Brown, Jeffery Brown, Robert Brucato, Robert Brunish, Wendee Bruzual - A., Gustavo Bryan, James Bryant, Light Buff, James Buffington, Andrew Burns, Michael Burrows, Adam Burton, Wilgus Bushouse, Howard Byrd, Gene Cabot, William Cadmus, Robert Caillault, Jean-Caldwell, Nelson Calvet, Nuria Campbell, Murray Campins, Humberto Carlberg, Raymond Carlson, Eric Carpenter, Kenneth Carpenter, Roland Carroll, Bradley Carswell, Robert Cash, Webster Cashdollar, Kenneth Castelaz, Michael Catacosinos, Paul Caton, Daniel Cecil, Gerald Centrella, Joan Cernuschi, Felix Chan, Kwing Charles, Philip Chen, James Chester, Thomas Cheung, Cynthia Chiu, Hong-Yee Choi, Kyu Hong Christian, Carol Christy, James Ciardullo, Robin Clarke, John Claussen, Mark Cliver, Edward Cochran, William Coffey, Helen Cohen, Martin Cohn, Haldan Combi, Michael Comins, Neil Cominsky, Lynn Connolly, Leo Conrath, Barney

Coon, James Cooper, R. Glenn Corbally, Christopher Corbin, Thomas Cordes, James Cornett, Robert Coroniti, Ferdinand Cowan, John Crutcher, Richard Cutri, Roc Czyzak, S. J. Da Costa, Gary Dabrowski, Jan Dame, Thomas Danford, Stephen Daunt, Stephen Davidson, J. P. Davies, Roger Davis, Donald Davis, Sumner Dawson, Dennis De Pater, Imke De Robertis, Michael Deguchi, Shuji Dejaiffe, Rene Deming, Drake Dennis, Brian Dere, Kenneth Dermott, Stanley Deupree, Robert Dewdney, Peter Dickey, John Dickman, Robert Dinerstein, Harriet Djorgovski, Stanislav Dobias, Jan Doepke, Lawrence Dones, Henry Doxsey, Rodger Dragon, John Draine, Bruce Drake, Stephen Dressel, Linda Dressler, Alan Drummond, Jack Duncan, Douglas Dundee, David Dunham, Edward

Dupree, Samuel

Durisen, Richard Duvall, Thomas Dwek, Eli Eastwood, Kathy Degioia Edberg, Stephen Eder, Jo Ann Edwards, Suzan Eilek, Jean Einasto, Jaan Eisenhardt, Peter Elitzur, Moshe Elliot, James Elliott, Denis Ellis, H. Benton Elmegreen, Debra Elvis, Martin Emslie, A. Gordon England, Martin Erickson, Edwin Erickson, Richard Esposito, Larry Fabbiano, Giuseppina Fabricant, Daniel Fairman, Rita Fanelli, Michael Fant, Ali Federman, Steven Feigelson, Eric Felten, James Ferland, Gary Fesen, Robert Fich, Michel Fienberg, Richard Filippenko, Alexei Fischer, Jacqueline Fisher, Paul Flasar, F. Michael Fleck, Robert Fleming, Thomas Foltz, Craig Fontaine, Gilles Ford, Holland Forman, William Forrest, William Fraknoi, Andrew Fraquelli, Dorothy Freedman, Wendy French, Howard French, Linda

French, Richard

Fresneau, Alain Friel, Eileen Friend, David Friesen, Larry Frisch, Priscilla Fry, James Frye, Glenn Fukui, Yasuo Fullerton, Alexander Gallagher, John Garcia, Michael Garwood, Robert Gary, Dale Gatewood, George Gatley, Ian Gautier, Thomas Geary, John Geballe, Thomas Gehrels, Neil Geller, Margaret Genzel, Reinhard Gergely, Tomas Ghigo, Frank Giampapa, Mark Gierasch, Peter Gies, Douglas Gilliland, Ronald Gioia, Isabella Giovanardi, Carlo Gisler, Galen Glackin, David Glassgold, Alfred Glueck, Vivian Godfrey, C. P. Goebel, John Goguen, Jay Goldberg, Bruce Goldreich, Peter Gordon, David Gott, J. Richard Graber, James Gradie, Jonathan Graf, Werner Graham, William Green, Daniel Green, Elizabeth Greenhouse, Matthew Greyber, Howard

Griese, John

Griffiths, Richard

Gurman, Joseph Gustafson, Bo Habbal, Shadia Haber, Deborah Hackwell, John Hagen, John Haisch, Bernard Hakkila, Jon Halbedel, Elaine Halliwell, Michael Hammer, Reiner Hanes, David Hanisch, Robert Hankins, Timothy Hansen, J. Richard Hansen, Stanley Hardee, Philip Harding, Alice Harmon, John Harms, Richard Harpaz, Amos Harris, Alan Harris, Hugh Hartig, George Hartkopf, William Hathaway, David Hathaway, William Hawley, John Hayes, Jeffrey Haynes, Martha Heacox, William Heck, Andre Heckert, Paul Heckman, Timothy Heiligman, Gary Held, Ronald Helfand, David Helou, George Henden, Arne Henkel, Christian Henry, Gregory Henry, Richard Herbert, Floyd Herbst, Eric Herter, Terry Hertz, Paul Hester, Jeff Hildebrand, Roger Hill, Frank Hill, John Himer, James

Buie, Marc

Burns, Jack

Burke, Edward

Cook, John

Cook, Kem

R

Hinkle, Kenneth

Kawaler, Steven Kay, Laura Kazanas, Demosthenes Keel, William Keeley, Douglas Keil, Stephen Kelley, Richard Kelton, Phillip Kemic, Stephen Kemper, Edward Kennicutt, Robert Kent, Stephen Kenyon, Scott Kielkopf, John Kim, Yong Hak Kimble, Randy Kingham, Kerry Kipp, Steven Klein, Richard Klimchuk, James Knapp, Gillian Knight, Frederick Kohl, John Kohman, Truman Kolena, John Konigl, Arieh Kostiuk, Theodor Kowalski, Michael Krisciunas, Kevin Kriss, Gerard Krolik, Julian Kuan, Pui Kulkarni, Shrinivas Kwitter, Karen Kwok, Sun Kylafis, Nikolaos Lacasse, Marc Lacy, John Laird, John Lamb, Richard Lange, Gunther Langer, Steven Langer, William Larosa, Theodore Larson, Stephen Lattimer, James Lauer, Tod Lawrence, Charles Lea, Susan Lee, Martin Lester, Daniel Lesyna, Larry Leventhal, Marvin Levine, Alan Levison, Harold Levy, David Liebovitch, Larry Lin, Robert Linfield, Roger

Lites, Bruce Littmann, Mark Locke, Maureen Long, Knox Lonsdale, Carol Lord, Steven Loren, Robert Loughlin, Jane Low, Boon Lubow, Stephen Luck, R. Earle Lucke, Robert Lugger, Phyllis Lumme, Kari Lynch, John Ma, Chopo Macalpine, Gordon Maccacaro, Tommaso Maccallum, Crawford Macgregor, Keith Mackenty, John Macneil, Paul Madejski, Grzegorz Magalhaes, Antonio Magnani, Loris Malina, Roger Malkan, Matthew Maloney, Frank Malumuth, Eliot Mansfield, Roger Marcaide, Juan-Maria Marcy, Geoffrey Mariska, John Marsh, Kenneth Marshall, Herman Martins, Donald Martonchik, John Matese, John Mather, John Mathieu, Robert Matson, Dennis Matthews, Jaymie Matthews, Larryl Mauche, Christopher Max, Claire Mazurek, Thaddeus Mccall, Marshall Mcconnell, Mark Mccutcheon, Robert Mcdavid, David Mcewen, Alfred Mcgimsey, Ben Mcnamara,

Bernard

Meech, Karen

Lissauer, Jack

Medford, Ronald

Meegan, Charles Meier, David Melia, Fulvio Melnick, Gary Melsheimer, Frank Merilan, Michael Merrill, K. Michael Merritt, David Mewaldt, Richard Meyer, David Mielbrecht, R. Miller, Glenn Mink, Douglas Misconi, Nebil Modali, Sarma Molnar, Lawrence Monet, Alice Moody, Elizabeth Moore, Marla Morabito, David Morgan, John Morgan, Thomas Mouschovias, Telemachos Mumma, Michael Mushotzky, Richard Mutel, Robert Mutschlecner, Joseph Myers, Philip Nakano, George Nations, Harold Navlor, David Neff, James Neff, Susan Neidig, Donald Nelson, Jerry Newell, Robert Newman, William Nicholson, Philip Nolan, Patrick Noland, Michael Noll, Keith Nolt, Ira Nomoto, Ken'ichi Nordsieck, Kenneth Norman, Colin Nousek, John Novacek, Greg Nuth, Joseph O'brien, George O'dell, Stephen Odenwald, Sten Oka, Takeshi Oliversen, Nancy Oliversen, Ronald Olson, Randy Orton, Glenn Ostlie, Dale

Owen, Frazer Owocki, Stanley Pacharin-Tanakun, Pornchai Paciesas, William Packer, Irene Parker, Gary Patterson, Alan Patterson, Robert Pauls, Thomas Pearson, Timothy Pedelty, Jeffrey Pence, William Percival, Jeffrey Perley, R. A. Peters, William Peterson, Bradley Peterson, Ruth Petre, Robert Piccirillo, John Pickles, Andrew Pier, Jeffrey Pierce, James Pilcher, Carl Plambeck, Richard Pollock, Joseph Pomphrey, Richard Preston, Robert Priedhorsky, William Prince, Thomas Pritchet Christopher Probst, Ronald Pryor, Carlton Pudritz, Ralph Puetter, Richard Radick, Richard Ratner, Michael Raymond, John Reasenberg, Robert Reid, Mark Retterer, John Reynolds, Stephen Rhodes, Edward Richards, Mercedes Ricker, George Robb, Russell Roberge, Wayne Roberts, David Roberts, George Roberts, Wm. Robinson, Edward Robinson, Jack Rodriguez, Luis Roellig, Thomas Romanishin, William Romney, Jonathan Rose, Louis

Rosen, Warren

Rossano, George Rothschild, Richard Rots, Arnold Roy, Jean-Rene Rudnick, Lawrence Rudy, Richard Rumpl, William Rumstay, Kenneth Russell, Jane Russell, Ray Ryan, James Ryter, Charles Saar, Steven Safko, John Saio, Hideyuki Sakai, Jun-Ichi Sakimoto, Philip Sakurai, Takashi Salzer, John Sandell, Goran Sanders, David Sarazin, Craig Sargent, Anneila Sato, Makiko Saulson, Peter Saumon, Didier Scalo, John Schatz, Dennis Schechter, Paul Scherrer, Philip Schloerb, F. Peter Schmelz, Joan Schmidtke, Paul Schmitz, Marion Schneeberger, Timothy Schneider, Donald Schombert, James Schreur, Barbara Schroeder, Daniel Schuster, William Schwartz, Richard Schweighauser, Charles Seab, C. Gregory Sebok, William Seitzer, Patrick Sellgren, Kristen Shao, Michael Shapiro, Paul

Shara, Michael

Shaya, Edward

Sherrill, Thomas

Shields, Gregory

Silverberg, Robert

Simon, Theodore

Simpson, Richard

Sinha, Rameshwar

Shull, Peter

Rosner, Robert

Ross, Randy

Sion, Edward

Sitko, Michael

Skelton, Dennis Skillman, Evan Smartt, Raymond Smethells, William Smith, Dale Smith, David Smith, Horace Smith, Paul Smith, Peter Smith, Verne Smyth, William Sneden, Christopher Snell, Ronald Snider, Joseph Snodgrass, Herschel Snowden, Steven Socker, Dennis Soderblom, David Spangler, Steven Sparke, Linda Spear, Gordon Spencer, John St. Cyr, Orville Stachnik, Robert Stahler, Steven Stark, Antony Stauffer, John Stebbins, Robin Steffes, Paul Steigman, Gary Steiman-Cameron, Thomas Stencel, Robert Stephens, Sally Stern, Robert Stevenson, David Stiennon, Michael Stier, Mark Stiff, Thomas Stocke John Stockman, Hervey Stoeger, William Stone, Remington Stoner, Jeff Stoner, Ronald Streeter, Jean Stringfellow, Guy Strong, Keith Struble, Mitchell Suess, Steven Sumners, Carolyn Suntzeff, Nicholas Sutton, Edmund Svestka, Zdenek Swank, Jean Hebb Sweigart, Allen Sweitzer, James

Sykes, Mark Szkody, Paula Taam, Ronald Takahara, Fumio Talent, David Tarbell, Theodore Tarter, C. Bruce Taylor, David Teegarden. Bonnard Teem, John Telesco, Charles Tennyson, Peter Teukolsky, Saul Thompson, David Thompson, Ian Thompson, Laird Thompson, Thomas

Thuan, Trinh Timothy, J. Gethyn Tohline, Joel Toller, Gary Tonry, John Torrence, Geoffrey Trauger, John Trinchieri, Ginevra Troland, Thomas Tsuruta, Sachiko Tueller, Jack Turner, Jean Turner, Michael Twarog, Bruce Tyson, J. Anthony Ubertini, Pietro Uchimoto, Eijiro Ukita, Nobuharu

Belton, Michael

Benedict, G. Fritz

Benner, D. Chris

Unwin, Stephen Uomoto, Alan Uson, Juan Valdes, Francisco Valeriani, Gino Vallee, Jacques Valtonen, Mauri Van Ballegooijen, Adriaan Van Der Hulst, J. Van Pelt, David Van Riper, Kenneth Van Steenberg, Michael Vanderspek, Roland Varshni, Yatendra Vestrand, W. Thomas

Veverka, Joseph Victoria, Ulises Vinti, John Vishniac, Ethan Vitello, Peter Alfonso Vogel, Stuart Vogt, Steven Vrba, Frederick Vrtilek, Jan Vrtilek, Saeqa Wachmann, Arthur Wade, Richard Waldron, Wayne Walker, Constance Wallace, William Walter, Frederick Ward, Martin

Wasatonic, Richard Wasserman, Ira Wasserman, Lawrence Wawak, Stephen Weaver, Thomas Webbink, Ronald Wegner, Gary Wehrle, Ann Weiler, Edward Weinstein, Arthur Weisberg, Joel Welch, Douglas Wells, William Wende, Charles West, Robert Whipple, Arthur White, Nicholas

Whitmore, Bradley Wiedenbeck, Mark Wiita, Paul Wilbur, Jay Wilkerson, Susan Wilkes, Belinda Wilking, Bruce Williams, Barbara Williams, Glen Willson, Robert Wilson, James Wilson, Robert Winget, Donald Winkler, P. Frank Wolfire, Mark Wolfson, C. Jacob Wolfson, Richard Wollman, Eric

Woodward, Charles Wootten, Al Worek, Thaddeus Worrall, Diana Wright, Edward Yanagita, Shohei Yang, Chao Young, Judith Zapolsky, Harold Zeilik, Michael Zelle, Joseph Zinn, Robert Ziurys, Lucy Zizka, Eugene Zotov, Natalia Zweibel, Ellen Zych, Allen

# 35-44 years

Aannestad, Per Ables, Harold Adams, Ronald Adelman, Saul A'hearn, Michael Ahluwalia, Harjit Ahmad, Imad Aizenman, Morris Aksnes, Kaare Albert, Donald Allen, Marc Aller, Hugh Aller, Margo Altenhoff, Wilhelm Altschuler, Martin Anderson, John Anderson, Kinsey Angel, J. Roger Argo, Harold Arny, Thomas Arons, Jonathan Arpigny, Claude Audouze, Jean Avrett, Eugene Baars, Jacob Backer, Donald Baird, Scott Balick, Bruce Ball, John Bardeen, James Barker, Edwin Barnes, Aaron Barnes, Thomas Basart, John Baym, Gordon Becklin, Eric Beckman, John Beebe, Herbert Bell, Morley

Benson, Neil Benz, Arnold Berg, Richard Berge, Glenn Bergstralh, Jay Berry, Charles Bieging, John Blaha, Milan Boeshaar, Patricia Bohlin, Ralph Bologna, Joseph Bond, Howard Bopp, Bernard Bowyer, C. Stuart Boyle, Robert Bozyan, Elizabeth Bradt, Hale Van Dorn Brecher, Kenneth Brooks, Neil Brosterhus, Elmar Brown, G. Stanley Brown, Larry Brown, Robert Brown, Robert Brownlee, Donald Bruenn, Stephen Bruhweiler, Frederick Bruning, David Bunner, Alan Burkhead, Martin Burns, Joseph Burton, Butler Butcher, Harvey Cahn, Julius Caldwell, John

Campbell, Donald Carbon, Duane Carleton, Nathaniel Carney, Bruce Caroff, Lawrence Carruthers, George Carson, T. Cassinelli, Joseph Castelli, John Catura, Richard Cavaliere, Alfonso Chaffee, Frederic Chaisson, Eric Chambliss, C. Chapman, Clark Chapman, Gary Chen, Peter Chevalier, Roger Chubb, Talbot Chupp, Edward Clark, Frank Clark, George Clark, T. Alan Clayton, Donald Clement, Maurice Cochran, Vance Cocke, William Coffeen, David Cohen, Judith Colvin, Jeff Conklin, Edward Conner, Jerry Conti, Peter Contopoulos, George Corbett, Joseph Corey, Brian Corwin, Harold

Costero, Rafael

Cox, Donald Coyne, G. V. Craft, Harold Craine, Eric Crampton, David Crane, Patrick Crane, Philippe Cruikshank, Dale Culver, Roger Dalgarno, A. Davis, John De Young, David Delsemme, Armand Devorkin, David Dickinson, Dale Dinger, Ann Dodd, Jack Dolan, Joseph Donivan, Frank Doschek, George Downes, Dennis Downs, George Doyle, Robert Dravins, Dainis Drilling, John Dryer, Murray Dudek, David Dufour, Reginald Dukes, Robert Dulk, George Dunham, David Dunham, Joan Dunn, Anne Dupree, Andrea Durgin, Harold Durney, Bernard Earl, James Elmegreen, Bruce

Elvius, Aina

Epps, Harland Erskine, Fred Etzel, Paul Evans, Charles Evans, John Evans, Nancy Evans, Neal Faber, Sandra Fekel, Francis Feldman, Paul Feldman, Paul Fenkart, Rolf Fink, Uwe Finzi, Arrigo Fishman, Gerald Fix, John Forman, Miriam Foukal, Peter Franklin, Fred Freedman, Richard Freeman, Kenneth Friedlander, Michael Frogel, Jay Fujimoto, Mitsuaki Fukuda, Ichiro Galatola, A. Gaposchkin, Peter Garmany, Catharine Garmire, Gordon Garrett, Henry Garrison, Robert Geldzahler, Barry Gever, Edward Gezari, Daniel Giacconi, Riccardo Gilman, Peter Giovanelli,

Riccardo

Glaspey, John Golden, Lawrence Goldsmith, Donald Golub, Leon Gordon, Mark Gorenstein, Paul Goss, W. Miller Gottesman, Stephen Gottlieb, Carl Gow, Charles Graham, John Grandi, Steven Green, Richard Greenberg. Richard Gregory, Philip Gregory, Steve Grindlay, Jonathan Groom, Donald Groth, Edward Gudehus, Donald Guetter, Harry Guinan, Edward Gulkis, Samuel Hagyard, Mona Hammond, Gordon Hanner, Martha Hanson, Robert Haramundanis, Kathrvn Hardebeck, Harry Harnden, Frank Harper, Doyal Harris, Allen Harris, Gretchen Harris, William Hartman, Robert Hartmann, William Harvey, Paul

Hauser, Michael Havlen, Robert Hawley, Steven Hayes, Donald Henry, J. Patrick Herbst, William Hess, Fred Hesser, James Hilgeman, Theodore Hill, Henry Hills, Jack Hine, Alice Hobbs, L. M. Hoffman, Alan Hoffman, Jeffrey Hoffmann, William Hollis, Jan Holt, Stephen Honeycutt, R. Huchra, John Hudson, Hugh Huebner, Walter Hull, Anthony Hunter, Christopher Hunter, James Hutchings, John Ianna, Philip Iben, Icko Ingersoll, Andrew Innanen, Kimmo Israel, Martin Itoh, Naoki Jacoby, Margaret Janes, Kenneth Janiczek, P. M. Janssen, Michael Jenkins, Edward

Johnson, Torrence

Belserene, Emilia

Johnson, W. Neil Johnston, Kenneth Jones, Harrison Jones, Thomas Jordan, Stuart Joseph, Robert Joss, Paul Joyce, Richard Kafatos, Menas Karp, Alan Kawabata, Kiyoshi Kayser, Susan Keay, Colin Kellogg, Edwin Kennedy, H. D. Kennedy, James Kennedy, John Khare, Bishun Kiewiet De Jonge, Joost Kirkpatrick, R. C. Kirshner, Robert Kliore, Arvydas Knacke, Roger Kniffen, Donald Koch, David Kormendy, John Kovach, William Kowal, Charles Krienke, O. Karl Kronberg, Philipp Krupp, E. C. Kulsrud, Russell Kurkowski, Jerome Kutner, Marc Kutter, G. Siegfried Lacy, Claud Lamb, Don Lamb, Frederick Larson, Richard Latham, David Lebofsky, Larry Lecar, Myron Leckrone, David Lee, Vincent Legg, Thomas Levine, J. Light, Edward Lillie, Charles Linsky, Jeffrey

Littleton, John Litvak, Marvin Lo Presto, James Lockman, Felix Lockwood, G. Lucke, Peter Luebke, William Luhmann, Janet Lutz, Julie Lynch, David Lvnds, Beverly Madore, Barry Maffei, Paolo Mahoney, William Manchester, Richard Maran, Stephen Margon, Bruce Margrave, Thomas Marks, Dennis Marlborough, J. Marschall, Laurence Martin, Robert Mathews, William Mayfield, Earle Mcalister, Harold Mccammon, Dan Mccarthy, Donald Mccook, George Mccray, Richard Mcgraw, John Mckee, Christopher Mcneil, Raymond Mechler, Gary

Mccray, Richard
Mcgraw, John
Mckee,
Christopher
Mcneil, Raymond
Mechler, Gary
Meszaros, Peter
Metzger, A. E.
Michaud, Georges
Michel, F. Curtis
Mickelson, Michael
Mickey, D. L.
Miller, Hugh
Millis, Robert
Milone, Eugene
Mintzer, David
Mitalas, Romas
Moffat, Anthony
Moffett, Thomas

Moore, Ronald Moorhead, James Moos, H. Warren Moran, James Morris, Mark Murray, Stephen Namba, O. Nelson, Robert Nesterczuk, George Newsom, Gerald Nichols, Joy Nickas, George Nicolas, Kenneth Noerdlinger, Peter Noves, Robert O'connell, Robert Oegerle, William Oertel, Goetz Oliver, John Ormes, Jonathan Osmer, Patrick Ostriker, Jeremiah Ouellette, Gerald Pacini, Franco Page, Arthur Pang, Kevin Pankonin, Vernon Pasachoff, Jay Pataki, Louis Peale, Stanton Peebles, P. J. E. Pelling, Michael Penhallow, William Percy, John Peters, Geraldine Peterson, Charles Peterson, Cynthia Petro, Larry Petrosian, Vahe Pettengill, Gordon Pfleiderer, Jorg Phillips, Mark Phillips, Perry Phillips, Thomas Pierce, Sam Pipher, Judith Poland, Arthur Polidan, Ronald

Poss, Howard Potter, Andrew Prata, Stephen Press, William Preston, George Price, P. BUford Primini, Francis Proctor, Deanne Ptak, Roger Racine, Rene Raimond, Ernst Rakos, Karl Ramsey, Lawrence Rankin, Joanna Rappaport, Saul Rather, John Reed, George Reynolds, Ray Reynolds, Ronald Rich, John Richards, David Richer, Harvey Richstone, Douglas Rickett, Barney Ridgway, Stephen Riegler, Guenter Rieke, Marcia Roger, R. Rogers, Alan Rogers, Ernest Rood, Robert Rosendhal, Jeffrey Rosenkilde, Carl Ross, Hazel Rountree, Janet Routledge, David Rubin, Robert Rubin, Vera Rust, Bert Rust, David Rybicki, George Rybski, Paul Rydgren, A. Sakurai, K. Sanders, Walter Sanders, Wilton Sandford, Maxwell Sandlin, Glenn

Savage, Blair Scarfe, Colin Scargle, Jeffrey Scherb, Frank Schild, Rudolph Schlesinger, Barry Schmidt, Edward Schmitt, John Schreier, Ethan Schwartz, Daniel Schwarz, Joseph Schweizer, Francois Scott, Roger Scoville, Nicholas Seaquist, Ernest Seeds, Michael Seidelmann, P. Serlemitsos, Peter Seward, Frederick Sgro, Anthony Shaffer, David Shapiro, Stuart Share, Gerald Shawl, Stephen Sheeley, Neil Shelus, Peter Sher, David Shu, Frank Shuart, Ross Shulman, Seth Silk, Joseph Simoda, Mahiro Simon, Michal Simonson, S. Christian Simpson, Erik Simpson, Janet Slabinski, Victor Slade, Martin Smith, Diane Smith, Edward Smith, Haywood Smith, Howard Smith, Lindsey Smith, Myron Smithson, Robert Snowden, Michael Snyder, Lewis Soberman, Robert

Spangenberg, William Spinrad, H. Stein, Robert Stetson, Peter Stone, Edward Straka, William Strittmatter, Peter Strong, Ian Stull, Mark Sturch, Conrad Sullivan, Woodruff Takebe, Hisao Terrell, N. James Thaddeus, Patrick Thomas, John Thomas, Roger Thompson, Rodger Thorne, Kip Thronson, Harley Title, Alan Tolbert, Charles Toomre, Juri Torres-Peimbert, Silvia Trasco, John Travis, Larry Trimble, Virginia Tucker, Wallace Tully, R. Brent Twigg, Laurence Usher, Peter Van Flandern, Tom Vanden Bout, Paul Vila, Samuel Vilkki, Erkki Waddington, C. Wagener, C. Wagoner, Robert Walborn, Nolan Walker, Gordon Walker, Robert Wannier, Peter Wardle, John Warren, Wayne Webb, David Webber, John Webster, William Weedman, Daniel

Weekes, Trevor Weiler, Kurt Weis, Edward Weisskopf, Martin Weitenbeck, Anthony Wells, Donald Welther, Barbara Werner, Michael Wertz, James West, Mary Lou Wheaton, William Wheeler, J. Craig Whitaker, William White, Nathaniel White, R. Stephen White, William Wickes, William Widing, Kenneth Will, Clifford Williamon, Richard Williams, Carol Williams, James Williams, Robert Willner, Steven Wills, Derek Wing, Robert Wingert, David Witt, Adolf Wolf, George Wolfe, Arthur Wolff, Sidney Wooden, William Woodgate, Bruce Woolf, Neville Woosley, Stan Wu, Chi-Chao Wysocki, Mark Yahil, Amos Yeomans, Donald York, Donald Young, Andrew Yuan, Chi Zappala, R. R. Zuckerman, Ben

# 45-54 years

Acton, Loren Altrock, Richard Anders, Edward Anderson, Howard Angione, Ronald Bahng, John Barnhart, Philip Barrow, Colin Bartko, Frank
Baschek, Bodo
Bash, Frank
Batten, Alan
Beckers, Jacques
Bless, R. C.
Bodenheimer,
Peter

Molnar, M. R.

Bookmyer, Beverly Boyce, Peter Bracher, Katherine Breckinridge, James Bremenkamp, Victor Broten, N. W.

Pomerantz, Martin

Burbidge, Geoffrey Burke, J. Anthony Carr, Thomas Castor, John Cayrel, Roger Chamberlain, Joseph Chou, Kyong

Saslaw, William

Clark, Barry
Cohen, Howard
Cohen, Marshall
Colgate, Stirling
Collins, George
Cowley, Anne
Cowley, Charles
Crawford, David

Soifer, B. Thomas

Cudaback, David Dahn, Conard Dent, W. A. Dickel, Helene Dickel, John Dietz, Richard Doherty, Lowell Edwards, Terry Elste, Guenther Epstein, Eugene Erickson, William Eryurt-Ezer, Dilhan Fazio, Giovanni Fernie, J. D. Fiala, Alan Field, George Fisher, Philip Fitch, W. S. Fliegel, Henry Franz, Otto Fredrick, Laurence Gaizauskas, V. Galt, John Gauss, F. Stephen Gaustad, John Gibson, James Gould, Robert Gray, D. F. Haddock, Fred Halliday, Ian Hapke, Bruce Hartwick, F. Harvey, J. W. Harwit, Martin Heeschen, David Heiles, Carl Henriksen, S. W. Henry, Richard Henze, William

Hogg, David Holmberg, E. Howard, William Hunten, Donald Irvine, William Jackson, E. S. Jefferies, John Johnson, H. R. Jones, Charles Jugaku, Jun Kaftan-Kassim, May Kaler, James Karshner, Gary Kaufman, Michele Kinman, T. D. Kissell, Kenneth Klemola, A. Klock, Benny Kovalevsky, Jean Kozai, Yoshihide Kraft, Robert Krause, Helmut

Kuhi, Leonard

Kumar, Shiv Kundu, Mukul Landolt, Arlo Larsson-Leander, Gunnar Liebenberg, Donald Lindenblad, Irving Livingston, W. C. Low, Frank Macconnell, Darrell Malville, J. McKim Marsden, Brian Martin, William Mathis, John Maxwell, Alan Mcilwain, Carl Mcintosh, Patrick Meisel, David Menon, T. K. Mertz, Lawrence Mihalas, Dimitri

Miller, Richard

Moore, Elliott

Morton, Donald Mulholland, John-Derral Mumford, George Neff, John Neupert, Werner Nishida, Minoru Nishimura, Shiro Olsen, Kenneth Olson, Edward Parker, James Parker, Robert Parsons, Sidney Parthasarathy, R. Partridge, R. Bruce Pascu, Dan Peery, Benjamin Peimbert, Manuel Peters, James Peterson, Laurence Pierce, David Poveda, Arcadio Price, Stephan Protheroe, William

Raff, Malcolm Rea, Donald Rickard, James Roberts, Morton Rodman, James Roemer, Elizabeth Rose, William Saito, Sumisaburo Sandmann, William Sargent, Wallace Scheer, Donald Schmidt, Maarten Schorn, Ronald Seielstad, George Shane, William Shao, Cheng-Yuan Shawcross, William Sherman, Nevin Shorthill, Richard Simkin, Susan Simon, George Sofia, Sabatino Solomon, L. H. Solomonides, Panos

Sparks, Warren

Stone, Sidney

Sturrock, Peter

Swenson, George

Terzian, Yervant

Thomas, Norman

Trafton, Laurence

Turner, Kenneth

Van Altena, Wm.

Van Den Bergh,

Vandervoort, Peter

Ulmschneider,

Teske, Richard

Thompson, A.

Richard

Toomre, Alar

Truran, James

Tull, Robert

Peter

Sidney

Vandervort,

Gordon

Starrfield, Sumner

Stecher, Theodore

Wagner, William Walker, Russell Wallerstein, George Wampler, E. Joseph Wehinger, Peter Welch, William Tandberg-Hanssen, Wentzel, Donat West, Frederick Westerhout, Gart Westerlund, Bengt Westerman, Cynthia Weymann, Ray Williams, John Wilson, Robert Wilson, Robert Wolff, Charles Wolstencroft, Ramon Wooley, Jon Zirker, Jack

# 55-59 years

Arp, Halton Athay, R. Grant Baum, William Bell, Barbara Blanco, Victor Boggess, A. Boggess, Nancy Brownlee, Robert

Burbidge, E. Cameron, Winifred Cox, Arthur Davis, Robert Dennison, Edwin Fujita, Yoshio Garstang, R. H. Ghaffari, A.

Gingerich, Owen Gleim, James Johnson, Fred Johnson, Hugh Liller, William Linnell, Albert Locke, J. L. Malitson, Harriet Mccarthy, Martin Motz, Lloyd Parker, Eugene Pecker, Jean-Claude Sawyer, Constance Schatzman, Evry Schiffmacher, Edward Schmidt, Gary

Seligman, David Skumanich, Andrew Smith, Bradford Tifft, William Wade, Campbell Wehlau, Amelia Weston, Edwin Yoss, Kenneth

# 60-64 years

Bidelman, William Duncombe, R. Herbig, George

Horak, Henry Jaffe, M. W. Lippincott, Sarah

Mathews, Robert Mcnamara, D Meinel, Aden

Roman, Nancy Savedoff, Malcolm Wilson, Albert

# 65+ years

Steel Lillibridge, Helen

# News from NSF Division of Astronomical Sciences

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

# New Proposal requirements for Postdoctoral Mentoring

We remind all PI's that beginning 5 January 2009, NSF requires that all proposals that request funding to support postdoctoral researchers include a separate section describing the mentoring activities that will be provided. This new requirement is a result of the America COMPETES ACT, signed into law in August 2007. The Grant Proposal Guide has been revised to reflect this requirement:

"Each proposal that requests funding to support postdoctoral researchers must include, as a separate section within the 15-page project description, a description of the mentoring activities that will be provided for such individuals. ... The proposed mentoring activities will be evaluated as part of the merit review process under the Foundation's broader impacts merit review criterion. Proposals that do not include a separate section on mentoring activities within the Project Description will be returned without review."

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

#### **OISE Program Summary**

NSF's Office of International Science and Engineering (OISE) supports innovative awards and supplements that promote research through new international collaboration and that develop the next generation of globally engaged scientists and engineers. OISE funds international research and education activities in all NSF-supported disciplines involving any region of the world.

OISE has a number of solicitations for programs fostering international collaboration, including those for undergraduate and graduate students (International Research Experiences for Students, Doctoral Dissertation Enhancement Projects, East Asia and Pacific Summer Institutes), postdoctoral scholars (International Research Fellowships Program), and international planning visits and workshops. The Partnerships for International Research and Education program (PIRE - NSF 09-505) fosters the development of innovative models for long-term, international research and education partnerships by funding institution-to-institution, cutting edge research conducted by US universities in collaboration with foreign counterparts.

Investigators may also include international components in proposals submitted to any relevant NSF program, or request supplemental funding for projects already supported by NSF. Investigators are encouraged to consult early in the application process with both the disciplinary program manager and OISE program manager for that country. OISE works with all NSF areas to co-fund new awards and supplements that meet these criteria:

- True intellectual collaboration with foreign research partner (Foreign partner's 2-pg biosketch & communication outlining project role must be included. If foreign institution will provide resources, also include an endorsement letter from the foreign institution.)
- New international collaborations, as opposed to well-established ones;
- Clear benefit to U.S. science/engineering community from expertise, facilities, or resources of the foreign collaborator; and
- Active research engagement of U.S. students and junior researchers at the foreign site.

Please see the OISE web site, at http://www.nsf.gov/oise, for a description of all programs and contact information by region and program.

# Upcoming Deadlines for funding:

Grant Opportunities for Academic Liaison with Industry (GOALI) (NSF 09-516). GOALI promotes universityindustry partnerships by making project funds or fellowships/ traineeships available to support industry-university linkages. Special interest is focused on affording the opportunity for:

- Faculty, postdoctoral fellows, and students to conduct research and gain experience in an industrial setting;
- Industrial scientists and engineers to bring industry's perspective and integrative skills to academe; and
- Interdisciplinary university-industry teams to conduct research projects.

GOALI will target high-risk/high-gain research with a focus on fundamental research, new approaches to solving generic problems, development of innovative collaborative industryuniversity educational programs, and direct transfer of new knowledge between academe and industry. GOALI proposals are accepted at any time. See the program announcement at http://nsf.gov/pubs/2009/nsf09516/nsf09516.htm for more information.

# AST seeking reviewers

Learn about the review process at NSF and gain insights into what it takes to write a successful proposal by participating in the proposal review process. Reviewers perform an essential service for NSF and the community. They also see a wide range of proposals, both successful and unsuccessful, read about current science, exchange ideas with colleagues on the panel and at NSF, and learn about the process of panel review. The experience is one of the best ways to prepare for writing your own proposal.

If you would be interested in serving on a review panel at NSF, please let us know, by contacting a program officer (Nigel Sharp (nsharp@nsf.gov), Linda Sparke (lsparke@nsf.gov), Brian Patten (bpatten@nsf.gov), Don Terndrup (dterndru@ nsf.gov) or Eileen Friel (efriel@nsf.gov)).

# Committee on Employment

# Choosing a Graduate School: Some Things to Think About

Author: AAS Employment Committee

In a career as an astronomer, few decisions matter more than the choice of graduate school. Graduate school is the place where you turn into a full-fledged and fully qualified member of the profession. A great experience can set you on your way with a whole lot of momentum and enthusiasm. For many years after you get your degree, your graduate advisor will be your strongest supporter. And, more than likely, you will spend at least half a decade in the locale you choose.

#### **Researching Institutions**

Creating a list of all of the graduate programs in astronomy is relatively straightforward, although some schools that offer research opportunities in astronomy can be harder to identify because they include their astronomy program inside a physics department. The American Institute of Physics maintains a comprehensive directory of graduate programs in physics and astronomy which can be accessed from their website (http://www.aip.org/) or from the convenient web page, http://www.gradschoolshopper.com/.

Sorting through this enormous list of grad programs can be daunting, however. Our best advice is to talk with professors and postdocs at your institution, to learn about the schools they recommend for you in your subfield(s) of interest. If you do not know any professional astronomers, ask the members of the physics faculty at your institution for any contacts in astronomy that they may have. Or you can contact astronomy professors at one of the schools you are considering and ask for advice given your particular interests and background. In addition, one potentially effective method to identify appropriate schools is to work backwards — identify researchers who have jobs like the one you want and find out where their degrees came from.

Department websites and personal contacts are key sources of information. You can also consult ranked lists of departments and research programs from places like the National Research Council (NRC) and the US News & World Report. These reports order departments based on various criteria such as scholarly achievement of the faculty and the availability of resources. General rankings are always controversial among astronomers, however, because people legitimately disagree about the relative importance of various factors. Use of citation indices and other statistical measures of the research impact of a department may also be informative (e.g. http://arXiv.org/abs/0811.0311), but citations are usually 5-10 years out of date and the status of up-and-coming departments changes more rapidly. Also, the best researchers do not always make the best advisors. In the end, the most relevant ranking is that which you derive on your own, based

on how well each program matches with your interests, your needs, and your abilities.

You will need a solid list of perhaps 5-10 graduate schools to which you will apply. Each school should to be a place you would seriously consider going, with at least one or two potential advisors. It is important to include a range of programs, including 1-2 "safety" schools that you will definitely get into, several schools that you are very interested in attending, and a "stretch" school or two. Personal contacts may help you identify which schools belong in which categories.

## Making the Choice

After you find out whether you are admitted to the schools on your list, you will likely be faced with a difficult choice. There are many aspects of each program to consider; a list of good questions to ask graduate programs and current graduate students is located at http://www.astro.indiana. edu/grad\_questions.shtml. Your decision making process should include consideration of research opportunities, academic requirements, and personal issues, such as location, funding, and quality of life. Visiting schools you are serious about is also extremely important, so that you can get a real feel for what they are like; most schools will pay for at least part of a trip.

During your visit, you should talk with several faculty members, some of whom you might envision working with. Ultimately, finding an advisor with whom you can work productively is key to success during and after graduate school. It is important to identify more than one person you can work with at your school of choice, however, as personality conflicts and funding problems can occur. You should also talk with the current students to hear their perspectives on the department and its environs. Both the intensive experience within your graduate program and the broader setting outside of your department will play big roles in vour life.

In the end, there is no one school that is perfect for everyone. The ultimate goal is to find a place where you, personally, have great opportunities.

# Committee on the Status of Women in Astronomy

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

## The 3rd International Women in Physics Conference

AAS members Hannah Jang-Condell (University of Maryland/ NASA-GSFC), who contributed this article, Emily Freeland (University of Wisconsin), Nicholas Murphy (University of Wisconsin) and Yilen Gómez Maqueo Chew (Vanderbilt University/Villanova) recently attended the Third International Conference on Women in Physics (ICWIP2008) in Seoul, South Korea. They were among over 330 scientists from nearly 70 countries from all corners of the world. Delegates came from African, Asian, European, Latin American, North American, and island nations. Jang-Condell, Freeland, and Murphy were members of the US delegation while Gómez Maqueo Chew represented Mexico. The meeting, held 7 to 10 October, was dedicated to celebrating the physics achievements of women throughout the world, networking toward new international collaborations, gaining skills for career success, and aiding the formation of active regional working groups to advance women in physics. Each country presented information about its statistics and its activities to increase women's participation.

"I enjoyed this meeting and the chance I had to compare my experiences in astronomy with those of women in physics," said Freeland. "I had extremely interesting conversations with women from Brazil, Canada, and South Africa, as well as my fellow US delegation members. Overall, the meeting helped reinforce, in my mind, the importance of role models, mentoring, and flexible family leave policies for both parents, as necessary conditions for increasing the number of women scientists." Jang-Condell said, "this meeting was a terrific opportunity to share stories with women in physics from around the world. Seeing so many successful women physicists from around the globe and hearing their stories was very empowering. One of the successes of this meeting was bringing us all together to share ideas and resources to help women in physics around the world." Dr. Youngah Park, a physicist who chairs the conference organizing committee, was recently elected to the Korean National Assembly from her district. She told the assembled participants, "I believe the positive effect of ICWIP2008 will go beyond the physics community and will have a strong effect on women leaders in all fields of science and technology."

Worldwide fewer than 15% of physicists are women. More than 80% of the conference attendees were women. It was clear that the scarcity of women in physics, especially in leadership positions, is a problem for many countries. They cannot benefit fully from women's ideas and approaches to improve their economic competitiveness or solve difficult problems, such as energy, health, and global sustainability. Women, men, institutions, and governments need to work together to encourage, educate, recruit, retain, advance, and promote more girls and women in physics and other science and technology professions. To that end, the conference participants unanimously approved a resolution presented at the 26th General Assembly International Union of Pure and Applied Physics (IUPAP) in Tsukuba Japan on 15 October 2008. The First International Conference on Women in Physics was held in Paris in 2002. The Second conference was hosted by Rio de Janeiro in 2005. Since the first conference most countries have made some progress in attracting girls to physics, increasing the proportion of physics degrees to women, and promoting women physicists. However, the proportion of physicists who are women is well below 20% in nearly all countries—too few to have maximum benefit for society.

The representatives assembled in Seoul unanimously recommend the following actions to the IUPAP 26th General Assembly in Tsukuba, Japan:

- 1. Promote through the IUPAP Liaison Committees and physical societies the formation of additional regional or national working groups for women in physics. These working groups would assist worldwide in the efforts to increase the participation of women, while being a resource to attract, retain, and advance women in physics.
- 2. Publicize site visits as an effective tool for improving the "climate" of physics workplaces, and encourage their implementation to help the workplaces become more supportive of both women and men. For a site visit, an institution or physics department invites a team of physicists to assess the work environment for women and to give advice for improvements in gender equity.
- 3. Actively encourage organizers of IUPAP-sponsored conferences to provide, associated with the conference program (a) professional development workshops for attendees and (b) outreach activities aimed at the public and to engage both girls and boys from an early age in the excitement of physics.
- 4. Charge the IUPAP Working Group on Women in Physics (a) to oversee the administration of a global survey of physicists in 2009, (b) to continue to assess the progress of women in physics, (c) to make useful resources available globally through the internet, (d) to organize the 4th International Conference on Women in Physics in 2011, and (e) to report at the 27th IUPAP General Assembly in 2011.
- 5. Urge IUPAP Liaison Committees and physical societies to take the leadership in their countries to encourage broad participation of their members in the global survey of physicists.

## Update on the Longitudinal Study of Astronomy **Graduate Students**

Contributed by Rachel Ivie and Susan White (Statistical Research Center, American Institute of Physics (AIP)

Data collection was recently completed for the first phase of the AAS/AIP longitudinal survey of astronomy graduate The project, which began in early 2007, was the result of recommendations made at the 2003 Women in Astronomy Conference. Eventually, the study will track astronomy graduate students over the course of several years. The study has several purposes: to collect data on people who obtain graduate degrees in astronomy, to compare attrition rates for men and women, to collect data on people who leave the field of astronomy, and to collect data on astronomers who work outside the traditional employment sectors of academe and the observatories. During the first wave of data collection, we received more than 1100 responses that are useable for the analyses. Approximately 700 men and more than 400 women responded, representing 148 different graduate programs. Our preliminary analyses show that women and men who have been in the program more than three years are: less likely to agree that the environment in the department is welcoming, more likely to believe they lack ability, and are less confident in their careers. Final results will be available in the fall.

Women in Astronomy and Space Science: Meeting the Challenges in an Increasingly Diverse Scientific Work Place Goddard Space Flight Center, together with the University of Maryland, are hosting a meeting on 21-23 October 2009, at the University of Maryland Conference Center on the topic of women in astronomy and space science with a focus on not only gender but generation and minorities. This meeting follows up on the "Women in Astronomy" meeting hosted by Space

Telescope Science Institute in 1992 and the Pasadena meeting hosted by Caltech in 2002. The topics include; 1) statistics on the state of the field, establishing trends over the last 15 years including the "longitudinal studies" of age vs. makeup of the field and identifying areas for celebration or for concern; 2) research on the impact of gender/generational/cultural differences in the science workforce, and 3) issues concerning the work environment and best practices for success of scientists in a diverse work force and 4) a special session on issues of minorities in science, and women in Earth Science. There is evidence for considerable success in increasing the percentage of women in the field of science and so we aim here to focus on issues concerning the success of those in the field. This meeting will highlight best practices to help the diverse scientific work force to succeed, and will address both the junior members of the field, as well as those who mentor and manage today's diverse scientific workforce. Information on this meeting will be available at http://wia2009.gsfc.nasa.gov.

#### **CSWA** web site

We are continuing to upgrade the CSWA's presence on the web. We plan more improvements in the coming. You can find us at, www.aas.org/cswa.

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addressed in appropriations in the spring. The AAS will continue to advocate strongly that conference attendance is a vital component of scientific collaboration, and that the restriction on conference spending as written has numerous negative consequences for the scientific community.

#### **Decadal Survey**

Roger Blandford, of Stanford University, is the chair of Astro2010, the next Astronomy & Astrophysics decadal survey. The decadal surveys are produced by the National Research Council of the National Academies of Sciences. The committee will "survey the field of space- and ground-based astronomy and astrophysics, recommending priorities for the most important scientific and technical activities of the decade 2010-2020." Rounding out the executive committee are, Martha Haynes (Vice Chair – Science Frontiers), Cornell University, John P. Huchra (Vice Chair – State of the Profession) Harvard University, Marcia Rieke (Vice Chair – Program Prioritization), University of Arizona and Lynne Hillenbrand (Executive Officer), California Institute of Technology.

A presentation by Dr. Blandford is scheduled for the AAS meeting in Long Beach, as is a town hall meeting to discuss the survey. Meetings of the committee in DC and around the country often contain open sessions. You can check the decadal survey web site for more information, as well as see the full membership. (http://www7.nationalacademies.org/bpa/Astro2010.html). Our Pasadena meeting in June will feature many decadal survey components. Plans include public meetings of the decadal committee and panels to be held in

the convention center along with the rest of the conference. In addition, audio from Dr. Blandford's presentation to the astronomy department chairs meeting, sponsored by the AAS, is available on our public policy blog—blog.aas.org.

#### The Next Budget

One difficulty in assessing the budget atmosphere for the decadal committee is the uncertainty in the budget for 2010, and the yet unresolved problem of FY 2009. We are currently operating under a continuing resolution for FY 2009, continuing the funding levels of FY 2008, which has meant for a continuation of the flat science budgets of the past. It's yet unclear how the FY 2009 budget will be handled by the new congress and new administration, but a large omnibus budget is certainly a strong possibility.

For the FY 2010 budget, which must be introduced by law in February of 2009, the release will only be a minimal budget outline, containing the top-line spending level for each agency and a few policy details for a few key priorities. The budget of a new president usually is a fulfillment of campaign pledges, so expect to see a budget that echoes what President-elect Obama promised in the campaign. However, the full policy budget will not be released until April of 2009; with full details from every government agency. How any large government spending package to stimulate the economy fits into the normal budget cycle remains to be seen—but it is likely that the new administration will seek to quickly pass an emergency economic rescue plan outside the normal budget / appropriations process.

# Calendar

## **AAS & AAS Division Meetings**

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

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

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

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

#### Other Events

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

\*Exoplanets and Disks: Their Formation and Diversity 9-12 March 2009, Kailua-Kona, HI Contact: Dr. Tomonori Usuda (usuda@naoj.org) http://www.naoj.org/SubaruConf09/

Commemoration of Edwin E. Salpeter 14 March 2009, Cornell University http://astro.cornell.edu/events/ salpetercommemoration/index.html

Wild Stars in the Old West II: The 14th North American Workshop on Cataclysmic Variables and Related

15-19 March 2009, Tucson, Arizona Contact: Steve B. Howell (howell@noao.edu) www.noao.edu/meetings/wildstars2/

\*Beyond JWST: The Next Steps in **UV-Optical-NIR Space Astronomy** 26-27 March 2009, Baltimore, MD Contact: Marc Postman (postman@stsci.edu)

\*Recent Directions in Astrophysical Quantitative Spectroscopy and Radiation Hydrodynamics

30 March-3 April 2009, Boulder, CO Contact: Keith MacGregor (kmac@ hao.ucar.edu)

http://www.hao.ucar.edu/events/ dimitri-fest/

Intermediate-Mass Black Holes: from First Light to Galactic Nuclei 1-3 April 2009, Irvine, CA Contact: Aaron Barth (imbh2009@gamblor.ps.uci.edu) http://www.physics.uci.edu/IMBH

Missions for Exoplanets: 2010 - 2020 21-23 April 2009, Pasadena, CA Contact: Michael Devirian (devirian@jpl.nasa.gov) exep.jpl.nasa.gov

The Search for Life in the Universe 4-7 May 2009, Baltimore, MD Contact: Marc Postman (postman@stsci.edu) www.stsci.edu/institute/conference/ spring2009

CASCA 2009: Annual Meeting of the Canadian Astronomical Society 26-29 May 2009, Toronto, Canada Contact: Ray Jayawardhana (rayjay@astro.utoronto.ca) astro.utoronto.ca/casca09

# \*IAU Symposium No. 261 Relativity in Fundamental Astronomy

27 Apr-1 May 2009, Virginia Beach, VA Contact: Sergei A. Klioner (sergei. klioner@tu-dresden.de) www.aas.org/divisions/meetings/iau/

\*Stellar Pulsation, Challenges for Theory and Observation 31 May-5 June, Santa Fe, NM Contact: Joyce Guzik (joy@lanl.gov) http:///www.lanl.gov/conferences/ stellar\_pulsation

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

1-5 June 2009, Madison, WI Contact: Sebastian Heinz (feedback@astro.wisc.edu) www.astro.wisc.edu/feedback Unveiling the Mass: Extracting and Interpreting Galaxy Masses, and a Celebration of Vera Rubin's Career 15-19 June 2009, Kingston, Ontario Contact: Stephane Courteau (courteau@astro.queensu.ca)

## \*Second Exeter Astronomy Conference

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

\*The Many Faces of Centaurus A 28 June - 3 July 2009, Sydney, Australia Contact: Ilana Feain (Ilana.Feain@csiro.au) http://www.atnf.csiro.au/research/ cena/

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

\*New or revised listings

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

A comprehensive list of world-wide astronomy meetings is maintained by Liz Bryson, Librarian C-F-H Telescope in collaboration with the Canadian Astronomy Data Centre, Victoria, BC. The list may be accessed and meeting information entered at cadcwww.hia. nrc.ca/meetings.



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# Washington News

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



Inauguration mania has gripped Washington. Voters in 2008 expanded the Democratic majorities in the House and Senate, and elected Barack Obama the 44th President of the United States. The mood on election night on the streets of Washington, which voted 93% for Barack Obama, was quite celebratory. Now, the city and its residents brace for 2-4 million people expected to visit for

the inauguration on January 20th. Tickets to various inaugural balls are going for \$1000 or more. Metro is warning that the subway can not possibly accommodate the transportation needs of the crowds on Inauguration day. DC residents are posting ads on Craigslist, hoping to rent out their apartments or homes for hundreds if not thousands of dollars. Thankfully, the AAS Executive Office will be closed on January 20th. I certainly do not envy any commuters who are expected to show up at work that day.

#### The Transition

President-elect Obama has been rounding out his cabinet and other appointments, with the focus of the transition on the economy. Some form of economic stimulus, through large government spending is widely expected; focusing on infrastructure and energy. It is possible that science could be included in the stimulus—most likely for NSF, DOE Office of

Science, and NIST. These are the agencies that were included in the America COMPETES Act and the President's American Competitiveness Initiative.

Nobel-prize winning physicist Stephen Chu has been appointed to run the Department of Energy. While DOE is not a big player in astrophysics funding, the inclusion of a prominent scientist in Obama's cabinet suggests that the Obama administration will place a high value on science and scientific advice and expertise, especially when it comes to developing new and alternative energy sources. Meanwhile, the *Orlando Sentinel* reported tension between the NASA transition team and NASA administrator Mike Griffin. Griffin, however, disputed the Sentinel's characterization of the discussion, and says NASA is "fully cooperating" with the transition.

## **NASA Travel**

I sent an Informational Email on the provision in the NASA Authorization Act concerning restrictions on NASA conference travel, which affects NASA civil servants at headquarters or at NASA centers. NASA has permitted FY 2008 money to be spent on travel through the end of 2008 calendar year. The AAS continues to work to address this issue on Capitol Hill.

From what I have learned, the language of the authorization act is not binding on the appropriations process, and that this issue can be continued on page 14