

# SPECTRUM



*A report on underrepresented minorities in astronomy*

## INSIDE THIS ISSUE:

## Significantly Increasing the Numbers of Minorities in Astronomy in the Next 10 Years: A Paper of Recommendations to the Decadal Survey Review

by *Dara Norman, NOAO*

Every ten years, the National Research Council convenes a committee to survey the astronomy and astrophysics community and identify the most important scientific and technical activities to be pursued over the subsequent ten-year period. This prioritized list of goals is the document often referred to as the “Decadal Review” and is presented to Congressional committees, who have jurisdiction over the priorities of the funding agencies by virtue of budget allocation. That time is currently upon us.

Many in the astronomical community think of the decadal review as being only concerned with the priority science and large technical projects that will take precedent in the coming decade. However, the last decadal survey, “Astronomy and Astrophysics in the New Millennium” (hereafter AANM), included substantial sections on workforce policy and education initiatives needed to effectively advance the scientific goals presented. Attention to policy and education issues was not new to these documents; in fact, the so-called ‘Bahcall Report’ (1990-2000) included recommendations that universities and national observatories be involved in teacher workshops and that the NSF initiate state-by-state fellowships to recog-

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## Strong Astronomy Turnout at the 2009 NSBP/NSHP Annual Conference

by *Laura Lopez, University of California Santa Cruz*

The joint annual meeting of the National Society of Black Physicists and the National Society of Hispanic Physicists (NSBP/NSHP) was held in Nashville, TN, this February 11-15, 2009. By all measures, the conference this year was one of the most successful ever, drawing over six-hundred participants from all subfields of physics. Since NSBP generously covers the travel costs of all students, the meeting had a dynamic cross-section of individuals from every level of academia and from across the United States. Broadly, the conference was roughly 400 students (half undergraduates, half graduate students) and 200 scientists and faculty. Thus, the meeting is an outstanding venue to network with senior scientists and to recruit younger minds for

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## HIGHLIGHTS:

- Learn about the decadal survey review recommendations to increase minorities in astronomy
- See how astronomers increased their presence at the annual NSBP/NSHP meeting
- Read about current events and issues relevant to minorities in astronomy
- Meet the winners of the new Beth A. Brown Memorial Prize

## Strong Astronomy Turnout at NSBP... (cont'd)

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summer or graduate study.

The conference has two components: a full scientific program and student support tutorials that present professional advice. The science program at NSBP/NSHP covers many subfields of physics, including astronomy and astrophysics. In the past, however, the astronomy turnout at NSBP/NSHP has been fairly weak, with only a handful of related

posters and talks. For example, there were only two astronomy-related research posters at the 2008 meeting! Clearly, we needed to step it up a notch to communicate the exciting results in astronomy and to demonstrate our commitment to diversity.

Thanks to the organizational efforts of Dr. Marcel Agüeros (Columbia University), Dr. Kevin Covey (Harvard CfA), and Dr. Andrew West (MIT), astronomy flourished at NSBP/NSHP this year and became possibly the most well represented subfield of the conference. The three solicited their friends and colleagues, who then solicited their friends and colleagues, and so on, until the meeting was widely publicized in the astronomical community. In addition, the three heavily encouraged everyone to submit abstracts for research talks to bolster the scientific program in astronomy and astrophysics. And their efforts were a resounding success. Astronomers from throughout the US converged at the NSBP/NSHP meeting and comprised roughly one sixth of the conference participants. About fifty astronomers gave poster or oral presentations on their research, and about fifty more represented their departments, universities, and laboratories as recruiters and exhibitors. Additionally, this year had a marked increase in astronomy faculty attendance, with professors from MIT, Harvard, Yale, Arizona, UNC Chapel Hill, UC Berkeley, Vanderbilt, Case Western, and elsewhere.

The NSBP/NSHP meeting had a broad scientific program that spanned many areas of physics: e.g., particle and nuclear physics, biophysics, medical physics, atomic physics, condensed matter, plasma physics, and computational physics. This year's schedule boasted an extensive astronomy program as well. In total, five sessions were dedicated to astrophysics topics: cosmology, star-formation and extrasolar planets, nearby galaxies, distant galaxies, and gravitational waves. Talks were given by a range of individuals (graduate students, postdocs, research scientists and professors), and they were presented at a level typical of general scientific astronomy meetings. Aside from these dedicated sessions, Professor Keivan Stassun of Vanderbilt University gave a plenary talk entitled "Astrophysical Frontiers in the Era of 'Big Data' " about the Sloan Digital Sky Survey and the Large

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## Strong Astronomy Turnout at NSBP... (cont'd)



Group shot of astronomers at the NSBP/NSHP annual meeting following one of the astronomy/astrophysics sessions.

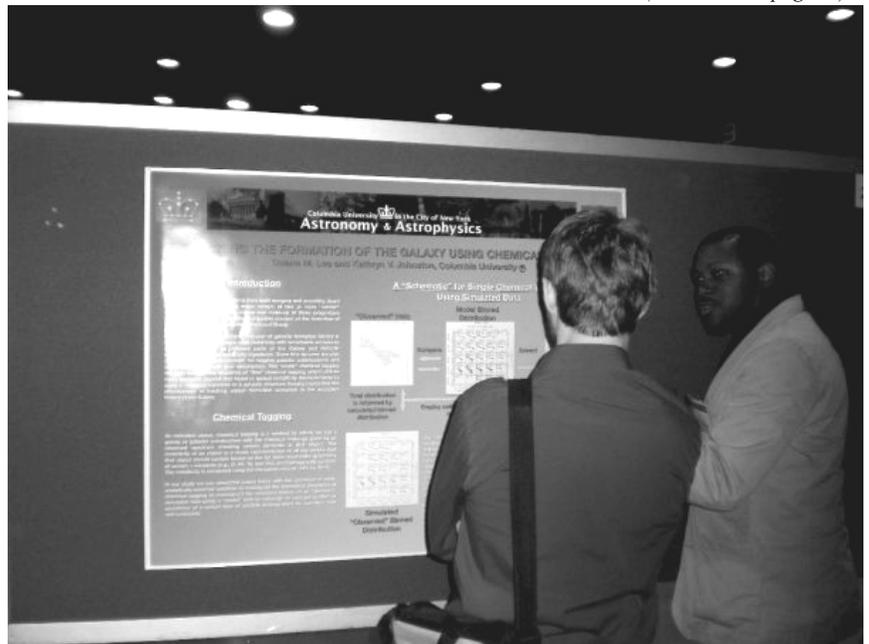
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Synoptic Survey Telescope. Additionally, the conference had a town-hall style focus session on the decadal review survey of astronomy and astrophysics. All of these activities make the conference feel like a diverse AAS or APS annual meeting.

As the society name NSBP suggests, most of the conference's participants are African-American. Nonetheless, scientists of any race/ethnicity are encouraged to attend and to take part in all events. In 2003, the NSHP merged its annual meeting with the NSBP, and the Hispanic presence has been growing since then. Additionally, each year the non-Black/non-Latino attendance has increased in support of diversity and to recruit students at the meeting. The atmosphere at NSBP/NSHP is very welcoming and inclusive, with many opportunities to converse and to develop friendships and col-

laborations. Many participants comment that the NSBP/NSHP meeting is an eye-opening and gratifying experience to see so many physicists of color in one place. Aside from the great science, the NSBP/

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Duane Lee, a graduate student in astronomy at Columbia University, presents his poster entitled, "Tracking the Formation of the Galaxy Using Chemical Tagging" (Photo Credit: Jedidah Isler)

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NSHP meeting is a valuable window to learn about the issues facing underrepresented minorities in physics today.

With the attendance of roughly 400 talented undergraduate and graduate students in physics, the NSBP/NSHP conference puts a strong emphasis on student support, networking, and recruitment. Many sessions offered career and academic guidance, including talks on how to study for the physics GRE, applying to graduate school, and obtaining postdoctoral positions. An astronomy networking dinner one night enabled students to speak with senior scientists in an informal setting. Additionally, many exhibitors advertised their summer, graduate, and postdoctoral opportunities in physics and related fields. In astronomy, recruiters from numerous departments/observatories attended (e.g., MIT, Wisconsin, Indiana, Harvard, Washington, Texas A&M, and the NRAO). This year, MIT, Wisconsin, and Columbia especially dominated attendance-wise. In the case of MIT, they had twenty-five students, postdocs, and faculty, including four physics professors (three of whom do astronomy)! This active presence demonstrates a commitment to their underrepresented students, and participants perceive those schools as welcoming and supportive places.

In recognition of astronomy student participation this year at NSBP/NSHP, Kevin Marvel and the American Astronomical Society graciously sponsored the creation of the Dr. Beth Brown Memorial Prize. Dr. Brown, an astronomer at NASA's Goddard Space Flight Center, was an active member of AAS and NSBP before her passing in October 2008. Three prizes were given in her honor for the best undergraduate and graduate poster presentations as well as the best student oral presentation. The winners of this prize (Chris Williams of MIT, Greg Mosby of Yale, and Laura Lopez of UCSC) are featured on page 16 of this newsletter.

Generally, a strong presence at NSBP/NSHP identifies departments as serious and committed to all students, and it draws qualified mi-



The astronomy networking dinner at the NSBP/NSHP annual conference (Photo Credit: Chanda Prescod-Weinstein)

norities to those institutions now and later in their careers. And one does not have to be African-American or Latino to attend NSBP/NSHP: the presence of a few non-minority scientists or professors still demonstrates that the department has a supportive atmosphere. NSBP/NSHP is a great resource to meet and to connect with physics students of color.

So, reader, you should take advantage of this outstanding opportunity and bring your department to next year's NSBP/NSHP meeting in Washington, DC. I know I will!