Good counsel leads to strong programs

Eighty-nine volunteers from our community come together annually to advise the divisions of the Physics Resources Center (PRC). Most of these volunteers hail from the ranks of our own Member Societies; others from the broader community contribute expertise in a given area. These committees provide essential feedback from our most important constituents to help guide AIP’s broad array of outreach activities.

There was a considerable amount of activity in the PRC over the last several weeks leading up to the March 4 meetings of six of these committees: Career Network, Center for History of Physics and Niels Bohr Library and Archives, Education, Government Relations, News and Media Services, and Statistical Research. The Physics Today advisory committee met in January and the Corporate Associates advisory committee will meet later in March.

During the kick-off plenary session, Fred Dylla, Cathy O’Riordan and Bo Hammer gave an overview of AIP and a budget update, thus providing a "big picture" programmatic and financial context for the more targeted discussions that would follow during each committee meeting. Their charge was to review each division’s suite of programs and services and to offer advice on how to increase their value to the community. Chairs from each committee then brought forward their committees’ recommendations to the Physics Resources Policy Committee (PRPC) the following day. The members of the PRPC discuss this advice in detail with the chairs and AIP senior staff, and ultimately produce a report to the Governing Board identifying the most important and strategic recommendations for the health of AIP’s physics resources.

Committees largely agreed that PRC programs, services, and outreach activities are of broad value to physics and society, and expressed confidence in the PRC staff to carry out these programs. There was also general support for management to continually
examine priorities and set strategic directions, especially in a climate of changing political and societal circumstances affecting science.

Of particular note: AIP and the Government Relations Advisory Committee (GRAC) were especially honored that former Congressman Vernon Ehlers agreed to join the GRAC. Ehlers is a current member of APS and AAPT. His insights and wisdom on the workings of Congress will be of particular value as AIP develops and executes its public policy agenda and outreach strategy with the Member Societies.

The management and staff of AIP’s Physics Resources Center are grateful for the time, thoughtfulness, and hard work provided by all of our committee volunteers. We look forward to implementing their recommendations as we strive to serve the physical sciences community, the Member Societies, and the general public.

PHYSICS RESOURCES CENTER MATTERS

New data on women faculty members in physics

New data from the Statistical Research Center show that the percentage of women faculty members continues to increase, reaching a high of 14% overall in 2010. The data come from the Academic Workforce Survey, which the SRC sends every other year to department chairs at all degree-granting physics departments in the US.

Women currently make up 22% of assistant professors in physics, which is slightly higher than the percentage of PhDs in physics earned by women. Although it is rising, the low percentage of women full professors continues to reflect the low percentage of women who earned physics PhDs in the past. For additional information about women in physics, please contact Rachel Ivie.

<table>
<thead>
<tr>
<th>Percentage of Physics Faculty Members Who Are Women</th>
<th>1998</th>
<th>2002</th>
<th>2006</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Rank</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Professor</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>10</td>
<td>11</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>17</td>
<td>16</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>Instructor/Adjunct</td>
<td>N/A</td>
<td>16</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td><strong>Other ranks</strong></td>
<td>13</td>
<td>15</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td><strong>Highest Degree Offered by Department</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD</td>
<td>6</td>
<td>7</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Master’s</td>
<td>9</td>
<td>13</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>11</td>
<td>14</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Overall</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: AIP Statistics
Fuel shortage of a different kind

Among the many challenges of launching science experiments into space is ensuring a reliable source of power. When solar power is not an option, many spacecraft use non-weapons-grade nuclear fuel in the form of Plutonium-238. It might be surprising to hear that the US has run out of Pu-238, and none is currently being produced. The US Department of Energy has not produced Pu-238 since the late 80's, and more recently, Russian production has also ceased. Without a source of fuel for spacecraft, NASA is in a difficult position. As detailed in recent FYI science policy news bulletins (http://aip.org/fyi/2010/117.html and http://aip.org/fyi/2010/107.html), Congress must act to fix this situation and decide how to allocate money for this project—DOE is the manufacturer and NASA is the primary user. The Administration is currently proposing to split the funds, and this means that several different sets of Congressional Committees must approve. Unfortunately, this has not yet happened.

AIP has recently partnered with AAS, AGU and the Association of American Universities to attempt to work out these issues with Administration officials and Congress. The shortage of Pu-238 will affect the future of NASA missions; our goal is to help Congress recognize the profound importance of fully funding the Pu-238 Production Restart Project. For more information contact Jennifer Greenamoyer of AIP’s Government Relations team.

This sphere of Plutonium-238 glows from its own heat. It is used in radioisotope thermoelectric generators, which convert the heat of radioactive decay into electricity to power long-distance spacecraft. Photo credit: US Department of Energy.

The Cassini spacecraft has three radioisotope thermoelectric generators, powered by plutonium-238. Illustration credit: David Seal.

WHATS COMING UP?

Monday – Wednesday, March 15 – 17
- Visit from Xingtao Ai, Chief Representative, AIP Beijing Office (Melville, NY and College Park, MD)

Tuesday, March 16
- Adult CPR/AED class (Melville, NY)

Saturday, March 19
- AIP Journal Editors Spring Conference (Dallas, TX)

Sunday – Monday, March 20 – 21
AIP/APS Industrial Physics Forum (Dallas, TX)

Monday – Friday, March 21 – 25

- 2011 APS March Meeting (Dallas, TX)

We invite your feedback to this newsletter via email to aipmatters@aip.org.

For past issues of this newsletter, visit the AIP Matters archives.