The Hispanic Physicist

The Newsletter of the National Society of Hispanic Physicists

http://www.hispanicphysicists.org/

Year 23 July 5, 2020

Cell Press Publishes List of 100 Inspiring Black Scientists in America

Cell Press, the publisher of the Cell and other affiliated journals, published a list of 100 Inspiring Black Scientists in America, as compiled by Antentor O. Hinton Jr., PhD, a postdoctoral fellow at the University of Iowa; Zer Vue, PhD, a postdoctoral fellow at UC-San Francisco; and Haysetta Shuler, PhD, at Winston-Salem State University.

Articles about Demographic Analysis on Textbooks and on Science Representation

The authors Sarah Wood et al. conducted a demographic analysis using statistics to carry out their study about scientists named in biology textbooks. We invite our readership to look up the open-access article at the Royal Society Publishing site.

On a similar note we have the article of Axel James et al. The authors discussed in their open-access paper the underrepresentation of women in science. Their study includes 30 science societies, four countries, and five distinct professional areas.

(Table 3 from Wood et al.)

Table 3. Racial and binary gender profile of scientists represented in textbooks compared with that of the United States population and population of biology students.

race category	representation text (%)	general population[a] (%)	biology student population[b] (%)
American Indian/Alaskan native	0.0	2.0	0.4
Asian	2.9	6.0	15.2
Black/African American	0.6	14.0	7.7
Latinx/Hispanic	0.6	16.0	11.3
native Hawaiian or other Pacific Islander	0.0	0.4	0.2
white	94.6	72.0	58.5
could not identify	1.3	N/A	3.9
binary gender			
men	86.9	49.2	40.0
women	13.1	50.8	60.0

[a]For data within the 2010 United States census, individuals sometimes fall into multiple racial groups [34].
[b]Bachelor's degrees in biological sciences conferred by postsecondary institutions, by race/ethnicity over 2015–2016 [35]. Here, students who fell into multiple racial groups were categorized as two or more races, and represented 3.7% of all students.

Call for Action

Some of our colleagues and readers from Atmospheric Sciences and Earth Science drafted a statement that will surely be of interest to our general audience. Please find the link here.

Metcalf Institute

RI C-AIM Career Development Program Summer Intensive

As part of the RI Consortium for Coastal Ecology Assessment, Innovation & Modeling (RI C-AIM) Career Development Program, Metcalf Institute will hold a two-day online professional development workshop for RI C-AIM participants, **July 16 – 17**, via Zoom. The program is open to graduate students, post-doctoral scholars, and pre-graduates (senior undergraduates planning to do graduate work in any of the **STEM** fields) at any of the eight RI C-AIM member institutions. Summer Intensive sessions satisfy CDP Certificate requirements or electives.

You are invited to register.

Lawrence Livermore National Laboratory
SCIENCE & TECHNOLOGY ON A MISSION

LLNL Webinar

In the sixth installment of the ANS Young Members Group "Spotlight on National Labs" series, attendees will

learn about Lawrence Livermore National Laboratory's history and current ongoing research related to nuclear sciences and engineering.

Taking place Thursday, July 16, 12:00 - 1:30 pm EDT, the webinar is free and open to all. Register today.

LLNL was created in 1952 as a "new ideas" laboratory to augment the efforts of Los Alamos in accelerating the U.S.'s hydrogen bomb program. Beginning with the vision of Nobel Prize winner and LLNL namesake E.O. Lawrence, the laboratory established a matrix organization that allows experts in various disciplines to assemble as a team and work together to understand and solve complex problems, a distinguishing feature of LLNL that is still in use today. The unique LLNL environment has allowed for advances in many disparate fields, including high performance computing, laser technology, element discovery, and nuclear weapons science and technology.

Panelists:

- Bill Goldstein, *LLNL Director*
- Bruce Goodwin, *Senior Laboratory Fellow*
- Cynthia Nitta, *Associate Program Director for Future Stockpile Transformation*
- Teresa Bailey, *Program Working Group Leader, National Stockpile*
- Caleb Mattoon, *Nuclear Data Physicist*
- Dan Casey, *Nuclear Engineer with the National Ignition Facility (NIF)*
- Paul Miller, *Technical Recruiting*

Moderator: Sarah Camba Lynn, *ANS Young Members Group Secretary*.

NEUP Nuclear Energy University Program
U.S. Department of Energy

Nuclear Energy University Program 2020

The NEUP is interested in supporting the participation of Historically Black Colleges and Universities, Hispanic Serving Institutions and Tribal Serving Institutions.

NEUP is revising a a funding call for research and teaching equipment for universities.

Registration Requirements

There are several one-time actions applicants must complete in order to submit an application in response to an application announcement (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the System for Award Management (SAM), and create an account on NEUP.gov. Applicants who are not registered with SAM should allow up to **five** weeks to complete this requirement. It is

suggested that the process be started **as soon as possible**.

If an applicant has not already done so, it must:

1. Obtain a DUNS number. DUNS website: http://fedgov.dnb.com/webform.
2. Register with the SAM. SAM website: http://www.sam.gov/.
3. Create an account on NEUP.gov using the 'Sign In' tab in the top right hand corner. To create an account:
    a. Click "Create a new account";
    b. fill out the required information and click "Create User";
    c. Fill out the information in the "My Information" section.

Also, please contact Terrence Buck Terrence.buck@inl.gov for info.

Civic Innovation Challenge

The Civic Innovation Challenge is a research and action competition that aims to fund ready-to-implement, research-based pilot projects that have the potential for scalable, sustainable, and transferable impact on community-identified priorities.

The National Science Foundation released additional information regarding the Civic Innovation Challenge including a date extension to **August 3rd**, increased funding to $11M, and COVID-19 guidance. For additional information, read the Dear Colleague Letter and the solicitation and register for our live Q&A session.

Lunar and Small Bodies Graduate Conference

We represent the NASA SSERVI Lunar and Small Bodies Graduate Conference (LunGradCon), a conference designed to give grad students, undergraduates, and early career postdocs studying small, atmosphere-less bodies in our solar system and beyond. The conference provides these students the opportunity to present their research in a low-stress environment composed entirely of their own student peers. These peers then provide

feedback to help the presenter give more effective talks in the future. This year we will also be featuring Q&A panels designed to help students find careers in the planetary and space science communities.

While the conference will be held virtually this year on **Wednesday and Thursday, July 1-2,** 2020, next year's conferences will be held in Boulder, Colorado. Travel funds are available for students who would wish to attend the in-person conference next year.

While we encourage any student pursuing relevant research to submit an abstract, we also encourage any student with interest in a career in planetary or space science to register and virtually attend the conference.

This year, we are making a concerted effort to increase diversity and representation in our conference. We recognize that science thrives when multiple perspectives are heard, and would like to personally reach out to any and all students within the National Society of Hispanic Physicists to join us at LunGradCon. We are also extending our **deadline to June 23** at 11:59 PDT.

Students who wish to attend but not present may register any time between now and the conference.

Interested students can find more information at http://impact.colorado.edu/

or email any questions to: lungradcon@gmail.com.

PPPL PRINCETON PLASMA PHYSICS LABORATORY

A Collaborative National Center for Fusion & Plasma Research

ITER Fabrication Department Head

The Princeton Plasma Physics Laboratory (PPPL) has an exceptional opportunity for a dynamic and visionary leader to serve as the U.S. ITER Diagnostic Team Lead and the PPPL ITER Fabrication Department Head. This position comes with the opportunity to grow and advance international research initiatives, leading engineering projects, influencing the most complex fusion facility ever built. ITER is an international nuclear fusion research and engineering megaproject, which will be the world's largest magnetic confinement plasma physics experiment studying burning plasmas for the first time. Thirty-five nations are collaborating to build and operate ITER tokamak, located in France.

In this role, you would lead a team of PPPL staff and subcontractors in delivering on U.S. diagnostic and port integration responsibilities. The ideal candidate would have an executive-level background and experience delivering multi-million dollar research or engineering projects. This role requires effectively collaborating with senior leadership at PPPL, U.S. ITER, and the ITER Organization as well as leaders from the other ITER domestic agencies, in devising and executing strategies for effective integration of U.S. diagnostic activities with the international ITER project. This position has overall responsibility for cost, schedule, and technical performance in the execution of U.S. ITER diagnostic scope. Managing the development and delivery of the state-of-the-art diagnostics while addressing the specific technical nuclear issues associated with ITER is on the

cutting edge of fusion engineering research. As a member of PPPL's senior leadership team, you will actively participate in Laboratory strategic planning and management functions, and represent U.S. ITER on the Laboratory Leadership Council.

- Directs the design and fabrication of ITER Diagnostic Systems for which U.S. is responsible.
- Leads a team of PPPL and subcontractors in delivering on U.S. diagnostic and port integration responsibilities.
- Has overall responsibility for cost, schedule, and technical performance in the execution of U.S. ITER diagnostic scope.
- Works with senior leadership at PPPL, U.S. ITER, and the ITER Organization in devising and executing strategies for effective integration of U.S. diagnostic activities with the international ITER project.
- As a member of PPPL's senior leadership team, participates in Laboratory strategic planning and management functions, and represents U.S. ITER on the Laboratory Leadership Council.

Education and Experience:

- Bachelor's Degree in high temperature physics, engineering, or related field, and 15 or more years' experience leading complex projects required.
- Advanced degree in engineering; 10 years' experience in leading major R&D, DOE or other federally funded programs or projects highly desirable.

Knowledge, Skills and Abilities:

- Ability to lead a national, multi-disciplinary engineering team.
- Ability to lead and perform effectively in a climate of constant change.
- Excellent interpersonal skills.
- Excellent communication skills.

Working Conditions:

- Frequent travel to the ITER Project site in France, U.S. ITER HQ at ORNL, and subcontractor sites.

Salary Range: 148k to 249k

Princeton University is an Equal Opportunity/Affirmative Action Employer and all qualified applicants will receive consideration for employment without regard to age, race, color, religion, sex, sexual orientation, gender identity or expression, national origin, disability status, protected veteran status, or any other characteristic protected by law. EEO IS THE LAW.

Please be aware that the Department of Energy (DOE) prohibits DOE employees and contractors from participation in certain foreign government talent recruitment programs. All PPPL employees are required to

disclose any participation in a foreign government talent recruitment program and may be required to withdraw from such programs to remain employed under the DOE Contract.

Remote Experience for Young Scientists and Engineers

This summer join us virtually at Old Dominion University for an engaging STEM-based summer enrichment program that is free and open to the public.

From June 22 to August 13, 2020, join a group of high-achieving, motivated and ambitious learners from all over the world for a virtual science and engineering program, Remote Experience for Young Engineers and Scientists (REYES). This program, developed originally with high school and college students in mind, is open to people of all ages.

During this unique 8-week summer experience, ODU will offer an **online program** filled with STEM classes, guest lectures, activities and opportunities for social engagement. Some of the topics covered in this program will include astronomy, artificial intelligence, solving crimes through entomology, engineering, coronavirus simulation with gaming technologies, psychology, Python coding and more.

You have the option to sign up to attend one lecture or the entire summer program.

Please register.

NEH Summer Stipends

The National Endowment for the Humanities' Summer Stipends program aims to stimulate new research in the humanities and its publication. The program works to accomplish this goal by:

- Providing small awards to individuals pursuing advanced research that is of value to humanities scholars, general audiences, or both
- Supporting projects at any stage of development, but especially early-stage research and late-stage writing in which small awards are most effective
- Furthering the NEH's commitment to diversity and inclusion in the humanities by encouraging applications from independent scholars and faculty at Hispanic Serving Institutions, Historically Black Colleges and

Universities, Tribal Colleges and Universities, and community colleges

Summer Stipends support continuous full-time work on a humanities project for a period of two consecutive months. NEH funds may support recipients' compensation, travel, and other costs related to the proposed scholarly research.

NEH staff hosted a webinar describing the program, including eligibility, the application and nomination processes, and suggestions for writing an effective application. The presentation included questions and answers from participants. To watch the presentation, click here or view below. A PDF version of the presentation slides is also available.

Working with INL

Idaho National Lab (INL) will change the world's energy future and secure our infrastructure! Join us - innovate the future!

The Materials Science and Engineering Department at INL is seeking applicants for a Materials Scientist/Materials Engineer/Metallurgist. The chosen candidate will be working in the area of general alloy processing including thermomechanical processing (TMP), e.g., rolling, forging, heat treatment, etc., of nickel and titanium alloys.

INL has traditionally excelled in the research, development and characterization of materials that support multiple types of advanced energy generation, storage, efficiency and security.

Responsibilities:

- Extrapolate past work on nickel and titanium alloys to other nickel and titanium alloys as well as to other alloy systems
- Optimize thermomechanical processing of commercial as well as emerging alloys for high strain-rate applications
- Apply TMP knowledge to other alloy systems, especially Fe-based, Ni-based, high entropy alloys, etc., in existing projects focused on other applications in extreme environments such as high temperature, high stress, high radiation environments and aggressive environments (e.g. molten salts, supercritical fluids and other corrosive atmospheres
- Serving as a major or sole contributor to the generation of reports, publications, and proposals and contribution or leadership to the generation of additional proposals and concepts submitted for external funding.
- Conducting and documenting work at an appropriate quality level, including collection and interpretation of

laboratory data, planning of research tasks, as well as assessing and applying a wide range of research techniques to those tasks.

- Representing the MS&E Department and INL with sponsors and peers through programmatic and technical presentations.

Minimum Requirements:

- Doctorate in Materials Science and Engineering or related field.
- Experience in traditional TMP methods, in the area of advanced manufacturing, especially utilizing nickel and titanium alloys, is also highly desirable
- Ability to obtain and maintain Q-Level Clearance.

Preferred Requirements:

Candidates exhibiting the ability to integrate and simulations into development of materials and advanced materials processing approaches will merit special consideration for this position.

Please contact Terrence Buck, Senior Talent Acquisition Diversity Lead, Ph: 208-526-6714.

Jobs

Please visit our Job Board (http://www.hispanicphysicists.org/JobBoard.html) to see more information about these and other opportunities.

Opportunity	Deadline
Metallurgist/Materials Scientist/Materials Engineer opportunity at Idaho National Laboratory (INL), Idaho Falls, ID.	Please see the link
Cibersecurity Policy Analyst opportunity with Idaho National Laboratory.	Please see the link
Statistician/Data Scientist opportunity with the Department of Defense.	Sep. 1, 2020; 3PM EST
Geospatial Data Creation and Curation Fellow opportunity with the Department of Transportation.	June 30, 2020; 3PM EST

Nuclear Enterprise Researcher opportunity with the Department of Defense. Please see the link

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The Hispanic Physicist. Published whenever there is news and the Editor has enough time. Send news, letters, congratulations, etc. to **Miguel Castro-Colin (**m.castrocolin@gmail.com**)**.

Our URL address is:
lhttp://www.hispanicphysicists.org/l