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The Hispanic Physicist

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*Luz Martinez-Miranda,
Materials Scie. and Eng. Dept.,
U of Maryland. Credit [UMD](#).*

Luz Martinez-Miranda recognized by First to Advance

[Prof. Luz Martinez-Miranda](#), the first woman to lead the NSHP, has been selected for the 2020 exhibit featuring women faculty at the University of Maryland.

[First to Advance](#) seeks to recognize faculty that achieved a “first” within their department or college.

NSHP congratulates Luz Martinez-Miranda!



SAMUEL DEWITT
PROCTOR INSTITUTE
for Leadership, Equity, & Justice



Research brief from the Center of MSIs We invite our readership to download the [research brief](#) from the Center for MSIs authored by Marybeth Gasman and Brandy Jones, April 2020. Below an excerpt.

“The Coronavirus (COVID-19) has thrown higher education into a time of uncertainty. Many scholars and pundits are making dire predictions about the future of tuition-driven colleges and universities, including most Minority Serving Institutions (MSIs). Although most MSIs will get hit harder by COVID-19 than Predominantly White Institutions (PWIs) due to their smaller endowments and enrollment of larger numbers of Pell Grant eligible, first generation, and low-income students, they will also benefit from their biggest strengths – that of being humane and resilient.

This brief highlights some of the many actions of MSIs in the midst of COVID-19 – actions on the part of presidents, faculty, student affairs professionals, students, and others. These actions are organized in sections related to community outreach, communication, technology, mental health, basic needs support, and curricula. Hopefully they will inspire others to act in the most humane ways toward students, faculty, staff, and beyond.”

Report: Underrepresentation of African-Americans in Physics

A two-year investigative report has been produced about the underlying reasons for underrepresentation of African-Americans in Physics. In the document TEAMP-UP discusses systemic issues identified as contributors to underrepresentation.

Five key factors are identified in the report:

(1) Belonging, (2) physics identity, (3) academic support, (4) personal support, and (5) leadership and structures.



Albert Einstein delivering a talk in 1946 at Lincoln University in Pennsylvania, the United States' first degree-granting historically black college or university. Credit [AIP](#).

What constitutes a supportive environment? What supports or not the financial ability of departments and students? These questions and more were explored in the study. An important outcome of the report are the findings and recommendations that will surely provide food for thought and action to those interested in the educational and socioeconomic factors affecting minorities.

Although not discussed in the report, among other factors, a reader could ask whether the [trends](#) in the [academic labor force](#) may have some role in underrepresentation.

We invite our readership to download the [full report](#) and/or read a [synopsis](#).



Hydrogen Infrastructure Opportunity

Oak Ridge Institute for Science and Education is currently accepting applications for the U.S. Department of Energy (DOE), Energy Efficiency and Renewable Energy (EERE) Science, Technology and Policy (STP) Program Fuel Cells

Technologies Office (FCTO).

You will learn and engage in critical aspects of FCTO's mission, such as materials compatibility, liquefaction, pipelines, tube trailers, and technologies used at hydrogen fueling stations, such as compressors, storage vessels, dispensers, and cryopumps. You will increase your skills in technical review of projects, drafting key documents summarizing program strategy and accomplishments, techno economic analysis to inform program target-setting, organization of workshops and conferences to solicit feedback from expert stakeholders, identification of priority areas of research, and giving presentations at technical conferences and events.

Location: Washington, D.C.

Apply Today! <https://www.zintellect.com/>

Financial Support: Education allowance of up to \$10,000 per appointment year to cover travel-related expenses and professional development activities.

This opportunity is available to U.S. Citizens or Lawful Permanent Residents.

Program Office Website: <https://www.energy.gov/eere/>.



**Homeland
Security**

Postdoctoral Fellowship, Transportation Security

The U.S. Department of Homeland Security (DHS) is offering [post-doctoral fellowships](#) with the Transportation Security Laboratory (TSL). TSL is seeking applicants to participate in a new endeavor in synthetic data generation and testing. The need to develop synthetic methods to develop and test new Deep Learning algorithms is paramount and the proposed work is new and cutting edge.

What will I be doing? As a TSL Post-Doctoral Fellow, you will be a part of a team of TSL staff and researchers focused on a two-fold approach synthetic data generation and testing involving x-ray and millimeter wave regimes.

Location: Atlantic City, NJ

As a participant with TSL, you will receive:

- Stipend starting at \$80,000
 - Health Insurance Allowance
 - Relocation Allowance up to \$2,000.
-



Short Course on Project Economic Evaluation and Financial Modeling

17-19 November 2020, New Forest, UK

Do you need to prove the financial feasibility of a project?

This course is designed to assist engineers, scientists, researchers, project developers, managers and students with how to prove the financial advantages and viability of technical projects.

A project developer not only works on the technical side of the engineering work but also has to be able to demonstrate the financial feasibility, i.e. presenting key indicators like ROI, specific costs, IRR etc. as well as a financial risk evaluation.

The participants of this course will learn how to perform these calculations. The lecturer will use a step-by-step approach, not only covering the right methods and calculations but also overcoming one of biggest problems an engineer has - how, and from where, do I get the data required for carrying out the economic analysis? There are numerous hands-on exercises of real projects with a focus on energy, environment protection, safety and security. The course will also enable the participant to work out banking papers for the funding.

Presented by: Prof. Helmut Koerber, APC Angewandte Physik Consulting, AG, Switzerland



INL Internship Program

Idaho National Laboratory (INL) hosts over 300 undergraduate and graduate students each year to support INL's mission. Opportunities range from nuclear engineering to cybersecurity

and include non-scientific positions in various operations and business disciplines.

Learn, collaborate, innovate and conduct research with top researchers and professionals.

- Complete this application, which is used to place students based on their academic interests, coursework, knowledge and communication skills
- Have the ability to pass a background check
- Enrolled full time student status at an accredited college or university (undergraduate, graduate, PhD)
- Possess a minimum overall 3.0 Grade Point Average (GPA)
- Due to the nature of the work performed, U.S. citizenship is required for cyber security internship opportunities.

Contact: Internships@inl.gov.



Jet Propulsion Laboratory
California Institute of Technology

2020 NASA Heliophysics Mission Design

Now through April 13, 2020, NASA is encouraging applications for the Heliophysics Mission Design School (HMDS), an early-career development pilot opportunity to help prepare the next generation of heliophysics science and engineering mission leaders. This experience is an adaptation of the Jet Propulsion Laboratory's long-running Planetary Science Summer School, focused on high-priority heliophysics content and mission design. Participants learn the process of developing a hypothesis-driven robotic space mission in a concurrent engineering environment while getting an in-depth, first-hand look at mission design, life cycle, costs, schedule and the trade-offs inherent in each.

Science and engineering doctoral candidates, recent Ph.D.s, postdocs, junior faculty, and certain master's degree students, who are U.S. Citizens or legal permanent residents (and a very limited number of Foreign Nationals from non-designated countries), are eligible. Applicants from diverse backgrounds are particularly encouraged to apply. Partial financial support is available for a limited number of individuals.

Session 1:

Preparatory Sessions Jun 22-Aug 28. Culminating Week at JPL Aug 31-Sep 4

Session 2:

Preparatory Sessions Sep 7-Nov 6. Culminating Week at JPL Nov 9-13

Roughly equivalent in workload to a rigorous 3-hour graduate-level course, participants spend the first 10 weeks in preparatory webinars acting as a science mission team, prior to spending the final culminating week at JPL being mentored by JPL's Advance Project Design Team, or "Team X" to refine their heliophysics mission concept design, then present it to a mock expert review board.

To apply and learn more about the NASA Science Mission Design Schools:

<http://go.nasa.gov/>.

Air Quality Modeling Scientist

The EPA National Student Services Contract has an immediate opening for a full-time [Air Quality Modeling Scientist](#) with the National Exposure Research Laboratory (NERL), Computational Exposure Division (CED) at the EPA facility in Raleigh, NC.

As a team member, you will gain experience and knowledge by assisting staff with various aspects of atmospheric model development, testing, and applications.



SUSI 2020, 22-24 June 2020

SUSI 2020 is the 16th International Conference in the successful series of Structures Under Shock and Impact. The first conference started in Cambridge, Massachusetts, (1989) and continued in Portsmouth, UK (1992); Madrid, Spain (1994); Udine, Italy (1996); Thessaloniki, Greece (1998); Cambridge, UK (2000); Montreal (2002); Crete (2004); the New Forest, home to the Wessex Institute (2006); the Algarve, Portugal (2008); Tallinn, Estonia (2010), Kos, Greece (2012); The New Forest, UK (2014); Crete, Greece (2016) and Seville, Spain (2018).

The increasing need to protect civilian infrastructure and industrial facilities against unintentional loads arising from accidental impact and explosion events as well as terrorist attacks is reflected in the sustained interest in the SUSI meetings over three decades. While advances have been made over this period, many challenges remain, such as to develop more effective and efficient blast and impact mitigation approaches than those that currently exist. The primary focus remains the survivability of physical facilities and the protection of people, as well as reducing economic losses and impact

on the environment, with emphasis on innovative protective technologies to support the needs of an economically growing, modern society. The application of this technology ranges from the safe transportation of people and dangerous materials to defences against natural hazards such as floods, wind, storms, tsunamis and earthquakes.

All papers presented at the SUSI conference since 1994 are archived in the WIT eLibrary (www.witpress.com/elibrary), where they are accessible to the international community.

COVID-19 - SUSI 2020 Status Update

Please note that following the recent events on the Coronavirus pandemic and with the main objective to preserve the well being of our delegates, this conference will have a **non-attending format**.

The period for submitting abstracts and papers to this conference continues to remain open. Accepted papers will be published in a volume of the WIT Transactions and delegates will receive an electronic copy of the publication as usual.

[Please click here for further information on WIT activities and updates on COVID-19.](#)



Internship Opportunity at the National Energy Technology Laboratory

Through the Oak Ridge Institute for Science and Education (ORISE), this posting seeks a researcher to participate on a project that will focus on thermal management of hot gas path components for gas turbines. Specifically the project will investigate the effects of film cooling on turbine tip flows. The effects on heat transfer and aerodynamics will be studied, while attempting to characterize how vortices are formed at turbine tips. Gaining an understanding of how vortices are formed will provide a direct assessment of the cooling effectiveness, and allow for more informed usage of film cooling to guide the leakage vortex, tip secondary flows.

The successful candidate will have a strong background in these elements:

- BS degree in Mechanical Engineering
- Thermal Fluid Sciences related to gas turbine performance
- Analytics and Experimental Design

Program information: Detailed information about the program can be found at <http://www.ornl.gov/netl/>. Please send a CV to Douglas.Straub@netl.doe.gov.

To apply: <https://www.zintellect.com/>.



SNAP the Gap

We are actively recruiting [mentors](#) for an exciting opportunity called [Snap the Gap](#), a program designed to increase attitudes and perceptions of STEM in 10-12 year old's across California. Snap the

Gap is rooted in three activities:

1. Hands on experiential learning,
2. mentorship, and
3. expanded learning opportunities.

This **no cost program** provides each participant access to mentorship, a littleBits STEM Inventor kit, and a 1 year subscription to [DIY.org](#) an online learning platform.

If you are interested in becoming a mentor, you can sign up via our [mentor application](#) or email us at Snapthegap@ucdavis.edu.

To view current program sites available in your area, please visit our [CA Million Women Mentor – Snap the Gap main page](#).

Jobs

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

Opportunity	Deadline
Environmental Science Writer at the EPA facility in Research Triangle Park, NC.	Please see the link
Watershed Modeler with the Office of Research and Development at the EPA facility in Athens, GA..	Please see the link
Environmental Science Writer with the Office of Research and Development at the EPA facility in Cincinnati, Ohio.	Please see the link
Bioinformatics Assistant with the Office of Research and Development at the EPA facility in Research Triangle Park, NC.	Please see the link
Database Integration Specialist with the National Homeland Security Research Center (NHSRC) at the EPA facility in Raleigh, NC.	Please see the link
Chief Scientist with the Materials and Fuels Complex (MFC) at Idaho National Laboratory.	Please see the link

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).

Jorge A. Lopez

Physics Department, UTEP

915-747-7528, Activities

11 attachments

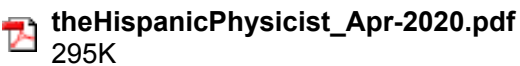



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