



# The Hispanic Physicist

The Newsletter of the National Society of Hispanic Physicists

Year 20

July 24, 2016



**Día de la Física/Day of Physics**

Event Timing: Wednesday October 12th, 2016 8:00 am - 4:00 pm  
 Event Address: 4129 Frederick Reines Hall, Irvine, CA 922697-4575  
 Contact Ximena C. Cid, Ph.D. at [xcid@csudh.edu](mailto:xcid@csudh.edu) and/or Franklin Dollar, Ph.D. at [fdollar@uci.edu](mailto:fdollar@uci.edu)

Día de la Física/Day of Physics is hosted by the National Society of Hispanic Physicists and the Physics Department at UC Irvine. This event coincides with the 2016 National SACNAS Conference in Long Beach, CA. We at NSHP are invested in creating a space to bring Hispanic and Latinx physicists together to learn about cutting edge physics, create a sense of community, and to provide resources to help students and professionals connect and find mentors. This event is all inclusive and is open to undergrad and grad students, in particular Hispanic/Latinx students. For students interested in joining the physics department as a transfer student or as a graduate student, an information session will be held.

This event is free for students, but space is limited to about 45 students. Coffee breaks and lunch will be provided. For non-local students attending the 2016 SACNAS National Conference, transportation from The Travelodge Orange County Airport (next to John Wayne Airport: SNA) to UC Irvine will be provided and at the end of the day from UC Irvine to Long Beach Convention Center will also be provided. More information about NSHP, SACNAS, and UC Irvine click on the following links: NSHP: <http://www.hispanicphysicists.org/> SACNAS: <https://sacnas.org/> and UC Irvine Physics: <https://www.physics.uci.edu/>



## NSHP Members in the News

After twenty years at Georgia Tech **Rigoberto Hernandez** will be moving to the Johns Hopkins University as a full professor in the chemistry department, and with adjunct appointments in biophysics and chemical engineering. Hernandez's recent honors include the 2015 Diversity Award from the Council of Chemical Research, a 2015-2016 Phi Beta Kappa Visiting Scholar Lectureship, and the 2016 Research Corporation Transformative Research and Excellence in Education (TREE) Award. More information is available at: <http://rescorp.org/news/2016/02/2016-tree-awards-announced>.



### NSHP congratulates Rigoberto!



**Dr. Carmen Pantoja** invites NSHP members to read and share the web site article she wrote about Víctor Blanco "El Primer Astrónomo Puertorriqueño". The Spanish language article is posted in the Mucarita Astrofísica web page: <https://mucaritablog.wordpress.com/>, and it is an excellent read for high school students too.

Thanks Carmen!

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### Accepting PhD students in Astroparticle Physics - Gran Sasso

The call for applications to the PhD in Astroparticle Physics at the Gran Sasso Science Institute is open, till September 1. The PhD program in Astroparticle Physics at the GSSI addresses some of the most pressing and fundamental questions in science today: the origin and the evolution of our universe, the nature of dark matter and dark energy, the study of neutrinos, of cosmic rays, of gravitational waves. A special attention is given to experimental and phenomenological aspects. The proximity of the Gran Sasso laboratories, the manifold connections with the research institutions INFN, INAF and ASI, the numerous GSSI lecturers engaged in active research, offer the students precious occasions of scientific growth.



The fellowships are awarded for three years and their yearly amount is € 16.159,91 gross. All PhD students have free accommodation at the GSSI facilities and paid canteen tickets. Applications are received with the online form, available at <http://www.gssi.it/phd/>, till September 1, 2016 at 18.00 (Italian time zone). The INSPIRE web-page of this call is at <http://inspirehep.net/record/1466504?ln=en>



### Two post-doctoral positions at the Univ. of Florida

Two post-doctoral positions are available for work with Sam Trickey and Jim Dufty (Dept. of Physics and Quantum Theory Project) at the Univ. of Florida. One post is primarily for development, implementation, testing, and first application of finite-temperature density functionals. The other is primarily on simplifying ("de-orbitalizing") higher-rung ground-state exchange-correlation functionals. The areas overlap. Both involve orbital-free density functional theory as well as the conventional Kohn-Sham formulation. See [www.qtp.ufl.edu/ofdft](http://www.qtp.ufl.edu/ofdft) for more.

A Ph.D. in physics, materials science, chemistry, or closely related discipline is required. Experience in development of approximate DFT functionals and/or background in free-energy DFT and/or quantum statistical mechanics is highly desirable. Experience in coding new functionals in complex codes (e.g. QuantumEspresso, PROFESS, VASP, WIEN2k) in a LINUX environment is also relevant. Funding is assured for the first year from our DOE and NSF grants, with renewal subject to mutual agreement. Salaries are competitive, commensurate with relevant experience and accomplishments.

Please provide:

- Cover letter that addresses clearly but briefly how your experience matches our needs;
- Curriculum vitae (including publication list and your contact information);
- Names and contact information for three references;
- Earliest possible start date

Contacts: Sam Trickey Jim Dufty, [trickey@qtp.ufl.edu](mailto:trickey@qtp.ufl.edu) and Jim Dufty, [dufty@phys.ufl.edu](mailto:dufty@phys.ufl.edu)



### Postdoctoral Fellowship at the Instituto Superior Técnico, Universidade de Lisboa

A call for one Post-doctoral Fellowship for PhD degree holders is open at the Instituto Superior Técnico, Universidade de Lisboa (IST-UL), for the project/R&D: SEeNULAND, Structure Effects studies along the Nuclear LANDscape with nuclear probes, PDC/FIS-NUC/2240/2014, supported by Fundação da Ciência e Tecnologia FCT-Portugal/MEC.

Candidates must hold a PhD in Physics, with experience of work in the field of Nuclear Structure and Interactions and should have scientific publications in peer-reviewed journals in the field of interest. The fellowship is funded to carry out research in the area of exotic nuclei, aiming to merge state-of-the-art nuclear structure formalisms beyond the standard mean field with few-body reaction frameworks, for example, developing effective nucleon-nucleus potentials. The theoretical approach should aim to properly describe both bound and unbound states of nuclei using the core plus nucleons models. The nuclear landscape of interest is the light/medium mass nuclei. This position is opened for 1 year renewable to two years with result of a positive report and it is expected to begin on October 2016 or later. The monthly allowance of the fellowship amounts to € 1495. Contact: [Raquel.crespo@tecnico.ulisboa.pt](mailto:Raquel.crespo@tecnico.ulisboa.pt).

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The Physics Division at the National Science Foundation is seeking applicants for Program Director positions in the following two programs: (1) Plasma Physics and Accelerator Science; (2) Theoretical Elementary Particle Physics and

Theoretical Astrophysics and Cosmology. Individuals interested in applying for these vacancies should submit their materials to announcement (1) PHY-2016-0002 or (2) PHY-2016-0003. Reference to the postings are given on the NSF Mathematical & Physical Sciences Directorate webpage at the URL [http://www.nsf.gov/publications/vacancy.jsp?org=MPS&nsf\\_org=MPS](http://www.nsf.gov/publications/vacancy.jsp?org=MPS&nsf_org=MPS). Details about all programs in the Physics Division are given on the PHY page as well at <http://www.nsf.gov/funding/programs.jsp?org=PHY>.



### Sloan Research Fellowships

*\$60,000 fellowships for exceptional junior faculty in the sciences, mathematics, and economics*

**Deadline: September 15th, 2016**

\$60,000 fellowships awarded annually to exceptional junior faculty in eight scientific and technical fields. Candidates must hold a tenure-track (or equivalent) position at a college, university, or other degree-granting institution in the U.S. or Canada and have been awarded their Ph.D. (or equivalent) on or after September 1, 2010.\* No more than three candidates may be nominated from any one department.

To be eligible, candidates must be nominated by a department head or other senior researcher. Please inform your faculty about this opportunity and consider nominating one of your outstanding junior colleagues for a fellowship. In keeping with the Foundation's long-standing tradition of supporting underrepresented groups in the science, technology, engineering, and mathematics, we strongly encourage the nomination of women and minorities. Learn more: [www.sloan.org/fellowships](http://www.sloan.org/fellowships).



### UC San Diego - LECTURER in PHYSICS

The Department of Physics at UC San Diego (<http://physics.ucsd.edu>) is seeking applicants

with a Ph.D. in Physics or related field with research experience relevant to the courses(s) to which they are applying to teach. Applicants with teaching experience are preferred; experience can be as a teaching assistant. Appointments may be full or part time, for 1, 2, or 3 quarters in duration, and may commence as early as September 2016. The primary focus of these positions will involve teaching physics courses, with emphasis on introductory laboratory and lecture courses for non-majors. Some involvement in related activities (e.g., curriculum development, training teaching assistants) is also a possibility. Review of applications will commence on August 15, 2016 and continue until the position is filled. Applications should be submitted online at: <https://apol-recruit.ucsd.edu/apply/JPF01130>. Please submit a cover letter, curriculum vitae, a teaching statement, summary of teaching evaluations, and a statement on past experience and leadership in equity, diversity, inclusion and/or proposed future contributions (see <http://facultyexcellence.ucsd.edu/c2d/index.html>). Candidates must also arrange to have three to five letters of reference that address teaching, research, and professional service posted to the above website.



### Fermi National Accelerator Laboratory - Research Associate (Neutrino Division)

Open Date: 07/01/2016 - Close Date: 08/31/2016

Fermi National Accelerator Laboratory seeks highly qualified candidates for postdoctoral Research Associate positions to work on neutrino physics using liquid and gaseous argon detectors. Fermilab has a strong and exciting research program with major commitments to a diverse range of liquid argon-based neutrino

experiments including LArIAT, MicroBooNE, the short-baseline neutrino (SBN) program, and DUNE. The program also includes a new effort to build and operate a small gaseous argon TPC that will be deployed in a charged particle test beam and in the NuMI neutrino beam. Additional information on the Fermilab neutrino program can be found here: <http://neutrino.fnal.gov>.

Positions are for a period of up to three (3) years, with the potential for extension considered on a yearly basis thereafter. Every effort will be made to design the research program and maintain support for a Fermilab Research Associate so that she/he has the opportunity to produce physics results.

Qualifications and Essential Job Functions: Ph.D. in particle physics, nuclear physics, or relevant subject by the time of the appointment. Successful candidates should have a strong record of recent accomplishments in experimental physics. Will be expected to play a leading role in neutrino data analysis, TPC construction, and/or neutrino event generator advancement. Candidates should be comfortable using the C++ programming language. The ability to travel by automobile and/or commercial air carrier both domestically and internationally may be required. Interested candidates should submit via Academic Jobs Online: 1) Cover letter, 2) Curriculum Vitae, 3) Research Statement, 4) Publication List and 5) Three Reference Letters (to be submitted by the reference writers at the AJO site). <https://academicjobsonline.org/ajo/jobs/7448>. For general information about this position, please contact Stephanie Schuler at [steph@fnal.gov](mailto:steph@fnal.gov).

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**American University** - Assistant Professor

The Department of Physics in the College of Arts and Sciences at American University invites applications for a full-time, tenure-track position: Assistant Professor of Physics to start September 1, 2017. Preference will be given to an experimental, computational, or engineering physicist. Responsibilities include teaching undergraduate courses across the physics curriculum, establishing an externally-funded, on-campus, research program involving undergraduates, and service to the department and University. The Department of Physics offers a BS and a BA in physics, minors in physics and applied physics, and also participates in a dual degree program in engineering. For more information about our program, see [www.american.edu/cas/physics](http://www.american.edu/cas/physics). We welcome questions about the position, directed to [physicssearch@american.edu](mailto:physicssearch@american.edu).

To be considered, applicants must have a PhD in physics, engineering or a related discipline; post-doctoral experience is preferred. Application materials, including a cover letter, curriculum vitae, teaching statement, research statement, and three letters of recommendation, should be submitted through Interfolio at the following link: [apply.interfolio.com/35907](http://apply.interfolio.com/35907). The committee will begin reviewing applications on November 1, 2016, and will continue until the position is filled.

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**The Hispanic Physicist.** Published whenever there is news and the Editor has enough time. Send news, letters, congratulations, etc. to **Jorge A. López**, [jorgelopez@utep.edu](mailto:jorgelopez@utep.edu). <http://www.hispanicphysicists.org/>.