

The Hispanic Physicist

The Newsletter of the National Society of Hispanic Physicists

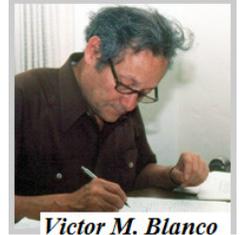
Year 19

July 1, 2015



2015 Blanco Fellows

The NSHP Blanco Fellowship selection committee selected Jessica Pena and Ignacio Magana as the 2015 Blanco Fellows. Jessica Pena is a rising junior at the University of Chicago, has worked in an outreach program at MIT, and is pursuing undergraduate research at UC. Ignacio Magana is a rising senior at UCSB, active in outreach, a transfer from Foothill College and with an NSF SME Scholarship. They both have been accepted by LIGO into the summer program to work with Caltech grad student Eric Quintero on the project "Adaptive feedforward seismic noise cancellation at the 40m interferometer". They will also receive funds to attend the SACNAS 2015 meeting.



Victor M. Blanco

NSHP congratulates Jessica and Ignacio!

NSHP Sessions at SACNAS 2015

SACNAS has approved all four physics sessions requested by NSHP. The Astrophysics session will be organized by Jesus Pando, the Heliophysics session will be coordinated by Ramon Lopez, the Materials Science session by Luz Martinez Miranda, and the Nuclear Physics session by Edmundo Garcia. The overall goal of the sessions is to highlight research being done by Hispanic researchers of all levels, from recent PhDs to experienced senior researchers. The 2015 SACNAS National Conference will be held October 29 - 31 at the Gaylord National Resort & Convention Center, Maryland.

**Interdisciplinary
Collaboration:
The Role of Diversity in
STEM Innovation**



**2015 SACNAS
NATIONAL CONFERENCE**
Washington, DC
October 29-31, 2015



Hope to see you there!

Luis Delgado Aparicio receives Early Career Research Award

Princeton Plasma Physics Laboratory physicist's Luis Delgado-Aparicio received a \$2.6 million Early Career Research grant to explore tools to solve a major barrier in developing fusion energy: impurities that can halt or slow a fusion reaction. Delgado-Aparicio earned a bachelor's degree in physics from the Pontificia Universidad Catolica del Peru, a master's degree in astrophysics from Princeton University in 2001, a second master's in physics from Johns Hopkins University and a PhD in physics from Johns Hopkins in 2007. He joined PPPL in 2009 and spent three and a half years as a visiting scientist at MIT before returning to PPPL in the summer of 2013



NSHP congratulates Luis!

Become a Mentor in the APS National Mentoring Community

The APS, in conjunction with the Committee on Minorities has launched the National Mentoring Community, an initiative to provide mentoring to underrepresented minority physics undergraduates and increase the number of URM students obtaining physics degrees. We encourage committed faculty mentors to register for free as NMC mentors and nominate minority undergraduate physics students to participate as their mentees. For more information and to register as a mentor see www.nationalmentoringcommunity.org

NMC Mentors: Save the Date! October 9-11, 2015

Registered NMC mentors and mentees are eligible for discounted registration and travel funding to our inaugural NMC Conference (Oct 9-11) held jointly with the APS Bridge Program Conference (Oct. 10-11) at Florida International University in Miami, FL. For more information and to register for the conference, see <http://www.apsbridgeprogram.org/conferences/2015/>

TENURE-TRACK POSITION



PHYSICS & ASTRONOMY
TEXAS A&M UNIVERSITY

**THEORETICAL NUCLEAR PHYSICS
TEXAS A&M UNIVERSITY**

The Physics and Astronomy Department at Texas A&M University seeks applications for a faculty position in theoretical low-energy nuclear physics under the auspices of the Nuclear Solutions Institute. Candidates at all career levels will be considered with priority going to junior or mid-career individuals. A selected candidate must hold an earned Ph.D. in physics or a related area. The appointment is expected to begin on September 1, 2015.

The Nuclear Solutions Institute combines basic and applied nuclear science with nuclear security technology and policy; it already encompasses a broad spectrum of faculty members drawn from across the university. The basic nuclear science program, which is conducted at the Cyclotron Institute, includes efforts in fundamental symmetries, nuclear structure and reactions, hot nuclei, nuclear astrophysics, few-body physics, and relativistic heavy ion collisions. The successful candidate for this position, who will have a joint appointment in the Cyclotron Institute and the Nuclear Solutions Institute, is expected to strengthen and/or broaden the existing basic science research in the area of low-energy nuclear theory. He/she will also assume full teaching responsibilities at the graduate and undergraduate levels and conduct a vigorous research program.

Each application should include:

- a cover letter specifying that the application is for the nuclear physics position,
- a *curriculum vita*,
- a list of publications,
- a description of future research plans,
- a teaching statement, and
- the names, addresses, telephone numbers, and e-mail addresses of at least three references.

Application packages should be submitted by e-mail to facultysearch@physics.tamu.edu (in pdf or Word formatted attachments), or by regular mail to:

Nuclear Search Committee (Walker)
Texas A&M University
Department of Physics and Astronomy
4242 TAMU
College Station, Texas 77843-4242

APPLICATION REVIEW WILL BEGIN ON JUNE 1, 2015, AND CONTINUE UNTIL THE POSITION IS FILLED.

Postdoctoral Fellowship in Nuclear Theory - Texas A&M University Commerce

The Department of Physics and Astronomy at Texas A&M University (Commerce, Texas) is seeking applications for a postdoctoral fellowship in nuclear theory with an anticipated start during the Fall of 2015. This position is two-year position with the possibility of half additional year extension. It is anticipated that research will focus on studying (d,p) reactions with the goal to extract information on neutron induced reactions on medium and heavy nuclei. The position will be in part dedicated to the development of high-performance computing applications in solving few-body problems, Faddeev and AGS equations more generally. Please provide a CV (including a list of publications) and a list of three references, sent by email to carlos.bertulani@tamuc.edu. Reference letters will be solicited from the list of references. A formal online announcement for this position will soon be made available at the Texas A&M University website: <https://jobpath.tamu.edu/postings/search>

Improving science communication - New 'toolkit' helps agency tell NSF-funded stories better

A new interactive resource available through NSF's website will help NSF-funded principal investigators and their institution public information officers understand better the process for creating communications tools, such as videos and feature stories, so that NSF more effectively communicates the science it funds.

This user-friendly resource, which is essentially a decision tree that shows examples of all of NSF's Office of Legislative and Public Affairs (OLPA) capabilities, is located with [NSF's communications resources](#) along with a text-only version. [\(Click on "Science Communication Toolkit for Principal Investigators."\)](#) In addition to showcasing all of NSF's communications vehicles with descriptions, examples and clickable links, the toolkit also contains:

- Statements on the importance and benefits of science communication
- Suggestions for communicating effectively, and
- The ideal communication chain between principal investigators, NSF program directors, and university public information officers

Accelerator Physicist - Research Associate Cornell Laboratory for Accelerator Sciences and Education



Cornell University

The Cornell Laboratory for Accelerator-based Sciences and Education (CLASSE) has an opening for an accelerator scientist to support

**CORNELL LABORATORY FOR ACCELERATOR-BASED
SCIENCES AND EDUCATION – CLASSE**

operation and upgrade of the Cornell Electron Storage Ring as a source of x-rays for the Cornell High Energy Synchrotron Source (CHESS) and as a Test Accelerator for the study of beam physics (CesrTA).

Requirements include:

- PhD in physics or engineering, with a background in one or more of the following: electrodynamics; high power RF technology and sources; electron beam physics; beam instrumentation;
- Demonstrated experience with experimental systems;
- Ability to direct technical support personnel;
- Experience working successfully as part of a team in a collaborative and multidisciplinary scientific environment;
- Familiarity or ability to quickly learn safety practices relevant to radiation generating devices.

The initial appointment is for three years with possibility for extension. Applications should be submitted at <http://academicjobsonline.org/> (posting #5639) and should include a cover letter, a CV, a list of publications, a detailed summary of research experience and interests. Applicants must arrange to have at least three letters of recommendation uploaded, as per instructions on the academicjobsonline website. The starting date is negotiable.

Staff position in experimental low-energy nuclear physics - Argonne National Laboratory

The Physics Division at Argonne National Laboratory is inviting applications for a staff position in experimental low-energy nuclear physics. Applicants in any sub-area will be considered but some advantage will accrue to applicants with expertise and research interests in nuclear astrophysics and experimental programs that can be realized at the Argonne Tandem-Linac Accelerator System (ATLAS). Information on the activities of the Group and the Division is available at www.phy.anl.gov. We are seeking candidates with 1) a doctorate in experimental nuclear physics plus postdoctoral experience, 2) an outstanding, established record and great promise for future growth in research, 3) considerable experience in the design, construction and execution of experiments, 4) the ability to identify important research topics and directions, and 5) excellent communication skills. We plan to appoint the successful candidate at the rank of Assistant Physicist (equivalent to Assistant Professor at a major research university), but outstanding senior candidates may be considered at the Physicist level.



Applicants should submit their curriculum vitae, a list of publications, a list of three references, and a brief description (< 2 pages) of their research interests and goals to requisition number 323613 at www.anl.gov/careers/apply-job/external-applicants. Applications received by September 1, 2015 will receive our fullest consideration.



Position Title: Environmental Engineer. An opportunity exists for a graduate student researcher who is interested in participating as part of the geologic and environmental sciences focus area research team at NETL in Pittsburgh, Penn. The researcher who is recruited will perform metagenomic-based studies of Bakken Shale microbial communities. For more information, visit <http://orau.gov/netl/open-projects/projects.html>

Through the Oak Ridge Institute for Science and Education, this posting seeks motivated **faculty researchers** who currently hold a full-time position at a degree-granting research institution interested in performing research as part of the Analytical Biogeochemistry Team at the National Energy Technology Laboratory. One objective of the geological and environmental sciences focus area is to develop and demonstrate a protocol for the use of natural geochemical tracers to monitor subsurface systems. Specific tracers of interest include naturally-occurring isotopes and natural bulk geochemical signals. For more information, please visit <http://orau.gov/netl/open-projects/projects.html>

A highly motivated **post-doctoral associate** is sought to participate in the development of a new computational tool suite for the prediction of materials properties in carbon capture materials. Specifically, the goals of this project will be to simulate a large database of materials and their associated carbon-capture-relevant properties and coordinate with the toolset of the Carbon Capture Simulation Initiative (CCSI) in order to optimize on carbon capture material and process simultaneously. For more information, please visit <http://orau.gov/netl/open-projects/projects.html>

Post-Doctoral Researcher–Materials Science & Engineering, Fatigue/Fracture Behavior. The National Energy Technology Laboratory (NETL) in Albany, Oregon is seeking motivated post-graduates (PhD level) interested in researching in the Structural Development Division at NETL. The post-graduate research pertains to materials performance in supercritical carbon dioxide (sCO₂) environments at high temperature. The scope of the materials research is to evaluate whether the available power plant materials are suitable for fossil fuel sCO₂ service. For more information, visit <http://www.orau.gov/netl/open-projects/projects.html>.

Graduate or Post-Doctoral Researcher - Particle/Material Strength Characterization. The National Energy Technology Laboratory (NETL) in Morgantown, WV is seeking a M.S. or Ph.D. in chemical/mechanical engineering, mining, materials science, or a related field to work with chemical looping combustion. This initial work will involve identification of what particle properties are important in resisting comminution while maintaining chemical reactivity, and developing an understanding of how these properties change during the chemical cycling of the material so that a simple engineering population balance model can be developed. More information: <http://orau.gov/netl/open-projects/projects.html>.

Postdoctoral Needed at SRNL! Research Associate in Micro-Analytical Methods. The National Security Directorate at Savannah River National Laboratory seeks highly qualified candidates for a Postdoctoral Research Associate position to develop advanced micro-analytical methods for material science problems. The successful applicant will conduct R&D focused on method development using advanced micro analytical techniques such as electron backscatter diffraction (EBSD) and computer controlled scanning electron microscopy (CCSEM) to characterize metal/alloys and other materials.

Qualifications Include: A Ph.D. in materials chemistry, nuclear engineering, materials science, geology, analytical chemistry, physics, metallurgical/materials engineering, or an associated field earned within the past five years. Experience with electron backscatter diffraction (EBSD) is required and experience with EBSD analysis of metals, alloys, or geological samples is desired. The candidate is expected to be trained in scanning electron microscopy and elemental dispersive spectroscopy operation. To apply, go to www.zintellect.com, make an account, use reference code SRNL15-09-NSD to find the position posting. You can also visit us on our website at <http://www.orau.org/epa/apply/index.aspx>.

Postdoctoral Position Sought

Mike Miszczak (memiszczak@gmail.com) earned a PhD in Physics last May from Northern Illinois University with a thesis on “Ginzburg-Landau Simulations of Narrow Superconducting Strips”. He also holds MS in Physics (2004, UTEP), BS degrees on Computer Science, Math, and Physics from The University of Illinois at Chicago and a BS in Biology from Loyola University at Chicago. Mike is interested in a postdoctoral position on a suitable area or in a teaching position; see attached CV.

Teaching/Research Position Sought

Tony J. Vilorio, (tviloria63@yahoo.es) earned a PhD in Physics from Byelorussian State University in Minsk and is currently a professor at the University of Zulia in Venezuela. Dr. Vilorio has teaching and student supervising experience as well as research experience in radon detection, its connection to lung mortality and other related topics. He is looking for a teaching or research position in the USA; see attached CV.

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