

# The Hispanic Physicist

The Newsletter of the National Society of Hispanic Physicists

Year 17

February 4, 2013

## Victor M Blanco Undergraduate Summer Research Fellowship

**February 15 Deadline**

The NSHP is partnering with the Laser Interferometer Gravitational Wave Detector (LIGO) laboratories - [www.ligo.caltech.edu](http://www.ligo.caltech.edu) - and associated universities to offer the Victor M Blanco Undergraduate Summer Research Fellowship. LIGO is a large interdisciplinary laboratory that is the world leader in the search for gravitational waves. The fellows will participate in the SURF program, the larger Caltech summer research experience for undergraduates program. Minority students will also have the option to participate in MURF, as described here: [www.ligo.caltech.edu/LIGO\\_web/students/SURF/murf/overview.shtml](http://www.ligo.caltech.edu/LIGO_web/students/SURF/murf/overview.shtml) - NSHP and LIGO will work to provide an experience in forefront science/engineering research with a friendly and supportive atmosphere. LIGO is interdisciplinary and seeks science (physics, astronomy, math, and chemistry) majors and engineering (electrical, mechanical, chemical, computer) majors.

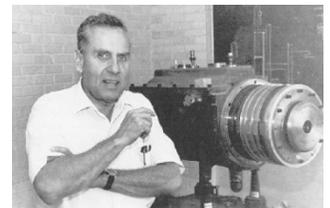


Victor M Blanco was a most distinguished US Hispanic (Puerto Rican) astronomer. He served in the army during World War II and received his PhD from the University of California, Berkeley, in 1949. He served as the Director of the Cerro Tololo Inter-American Observatory (CTIO) from 1967-1981, overseeing the initial construction of the lab and guiding its growth and science for fourteen years. Among his accomplishments was the discovery of the open cluster which is named Blanco I and, in 1995, the 4m CTIO telescope was named the Victor M Blanco Telescope. He died in 2011.

Students interested need only apply to the SURF fellowship at <https://surf.ligo.caltech.edu/>. Deadline is February 15!

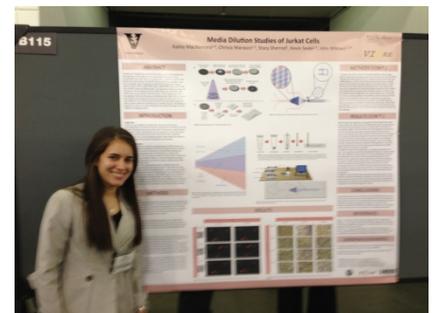
## Marcos Mazari, pioneer of nuclear physics in Mexico dies at 87

The Mexican experimental physicist Marcos Mazari Menzer was one of the pillars that contributed to the development of nuclear physics in Mexico. Educated in Mexico and MIT, he constructed the first Van de Graff in Mexico. Dr. Mazari was with the UNAM's Institute of Physics for more than 50 years, and was also an adjunct professor at MIT from 1969 to 1975. See UNAM's obit here [www.fisica.unam.mx/noticias\\_mueremarcosmazari2013.php](http://www.fisica.unam.mx/noticias_mueremarcosmazari2013.php)



## NSHP student member Kailey MacNamara Wins Prize at ABRCMS Meeting

NSHP student member Kailey MacNamara, from Florida International University, won the outstanding Engineering, Math, and Physics Poster at the Annual Biomedical Research Conference for Minority Students (ABRCMS) held November 7-10 in San Jose, California. She also won a second added prize for posters that were interdisciplinary. This is a very large meeting attended by 3,300 individuals that includes 1,700 undergraduate students. The meeting focuses on students in biomedical and behavioral sciences. She did her work last summer at the NSF supported Vanderbilt Summer REU Program. Her mentors were Professor John Wiksw, the Gordon A. Cain University Professor and the A. B. Learned Professor of Living State Physics, and Assistant Professor Kevin Seale. **A big congratulations to Kailey!**



## Are you about to select your research advisor?

The most important choice you may make concerning your graduate career may not be the school you attend, but the research advisor you choose. Find here some very thoughtful advice on how to make this very important decision, <http://sacnas.org/about/stories/sacnas-news/winter-2013/selecting-dissertation-mentor>



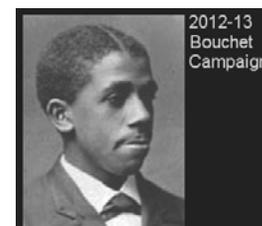
## Sekazi Mtingwa publishes “Introductory Physics II: On the Duality of Electric and Magnetic Phenomena”

The electronic textbook, “Introductory Physics II: On the Duality of Electric and Magnetic Phenomena,” is now available for purchase at [triseedconsultants.com](http://triseedconsultants.com). Please encourage professors to adopt it for their calculus-based, freshman/sophomore E&M courses. The Lectures offer a new way of introducing E&M concepts by continually showing the parallel between the electric and magnetic sectors of E&M. The course starts with an introduction to special relativity and uses it to show how the existence of electric fields must be accompanied by magnetic fields. From there, practically all electric and magnetic phenomena are introduced together, as opposed to spending the first half of the course studying electric phenomena and devoting the second half to studying magnetic phenomena, as is usually done. For most students, this latter approach loses the beauty of the unification of electricity and magnetism.



## Help Endow the APS Edward A. Bouchet Award - An Invitation from Jim Gates

I am co-chairing a fundraising campaign in order to endow the Edward A. Bouchet Award. The award identifies and highlights minority physicists and provides role models for students who will become our next generation of scientists. The current Campaign was launched to establish new funding since the original sponsor, Research Corporation, is no longer able to continue its support. Fortunately the Alfred Sloan Foundation is providing temporary funding but we are seeking to endow the Award in perpetuity. **Our goal is to raise \$140,000, of which \$83,000 has been contributed to date.** Recently, our Campaign received a real boost! **Every gift received over the next few months will be matched 1:1.** This means that we are only \$28,500 away from our matching goal. Please help us attain our goal by joining with us in support of this campaign. Please visit the Bouchet Campaign website for more information and ways to make a tax-deductible gift or pledge, <http://www.aps.org/about/support/bouchet/index.cfm>.



I would be happy to answer any questions you may have or you can contact Darlene Logan, APS Director of Development, at (301) 209-3224 or [logan@aps.org](mailto:logan@aps.org).

Sincerely,

S. James Gates, Jr., [gatess@wam.umd.edu](mailto:gatess@wam.umd.edu)

## Applications for the 2013 [Innovation Expo](#) are now open through March, 2013

Now is your chance to join a select group of technological game-changers whose ingenuity will be showcased by the USPTO and the Smithsonian Institution in a celebration of innovation. Cutting-edge innovators can apply to exhibit at the June 20-22 Innovation Expo at the United States Patent and Trademark Office Headquarters in Alexandria, Va, across the Potomac River from the Nation's Capital. Exhibits will showcase the latest technological developments from a wide range of institutions including corporations, small businesses, academic institutions, government agencies and the independent inventor community. A diverse range of technologies will be represented at the Expo. The Expo will also demonstrate the vital role America's intellectual property system and the United States Patent and Trademark office play in promoting and protecting innovation, a role that contributes greatly to America's competitiveness and economic prowess in the global economy.



The Expo is the first event in a seven-year collaboration between the USPTO and the Smithsonian to develop programs and exhibitions related to innovation for the Arts and Industries Building located on the National Mall. Those selected for this year's Expo will also be invited to participate as exhibitors when the event moves to the Mall in the summer of 2014. The application deadline is March 31, 2013. An independent committee will review applications and select exhibitors space on a rolling admissions basis. Space is limited, so apply now. Applications will be reviewed by an independent committee made up of representatives from some of the most important and respected intellectual property organizations.

**Join the celebration! Your place at the 2013 Innovation Expo is waiting.**

For more information, see [http://www.uspto.gov/patents/init\\_events/innovationexpo/IE2013\\_main.jsp](http://www.uspto.gov/patents/init_events/innovationexpo/IE2013_main.jsp), email [innovationexpo@uspto.gov](mailto:innovationexpo@uspto.gov), or contact: Elizabeth Dougherty, 571-272-7733, [Elizabeth.Dougherty@USPTO.gov](mailto:Elizabeth.Dougherty@USPTO.gov)

# **IX INTERNATIONAL SYMPOSIUM ON RADIATION PHYSICS**

**April 15th - 17th, 2013.  
Benemérita Universidad Autónoma de Puebla.  
Puebla, Pue. MÉXICO**

## **MAIN TOPICS:**

- Material Sciences with particle beams.**
- Radiation Detectors, active and passive (Tracks).**
- New technologies and applications.**
- Production and application of neutron fluxes.**

## **ORGANIZING COMMITTEE:**

**Carlos Vázquez López (CINVESTAV-IPN)  
Guillermo Espinosa (IFUNAM)**

**Technical Support: Arcadio Huerta, José Ignacio Golzarri**

**Official web page: <http://www.smf.mx/~fr-smf/>**



The Physics Division at the NSF is seeking applicants for the position of Program Director in the Experimental Atomic Molecular and Optical Physics and Theoretical Elementary Particle and Astrophysics and Cosmology Physics Programs. In order to make certain that as many people as possible know that the positions are available, could you please broadcast the availability of these positions to the membership? If there is someone else I should be contacting for posting announcements, please let me know. Reference to the posting is given on the NSF Mathematical & Physical Sciences Directorate webpage at the URL <http://www.nsf.gov/pubs/2013/phy13001/phy13001.jsp>. This page also includes a description of the various appointment alternatives and instructions on how to apply to the announcement. Details about the programs, and all programs in the Physics Division are given on the PHY page as well at [www.nsf.gov/div/index.jsp?div=PHY](http://www.nsf.gov/div/index.jsp?div=PHY). Contact: Kimberly Humphries, Operations Specialist, Division of Physics, Rm. 1015, (703) 292-7387 (office).

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### **Nuclear Theory Position at Western Michigan University**

The Physics Department at Western Michigan University seeks candidates for a tenure-track faculty position at the assistant professor level in the area of theoretical nuclear physics to begin Fall 2013, pending budgetary approval. The successful candidate will be expected to establish a vigorous research program with opportunities for graduate and undergraduate students, and to secure external funding. Applicants must have a Ph.D. in Physics or a closely related field, and some post-doctoral research experience is desirable. Interest in the physics of exotic nuclei relevant to the Facility for Rare Isotope Beams is especially welcome. WMU offers bachelor, Masters, and Ph.D. degrees in physics. See [www.wmich.edu/physics](http://www.wmich.edu/physics) for an overview of the department. Applications should be made electronically through [www.wmujobs.org](http://www.wmujobs.org). A cover letter, vita, statement of research and teaching philosophy are required and should be submitted online. Applicants should arrange to have three letters of reference sent to: Prof. Kirk Korista, Chair, (email: [kirk.korista@WMich.edu](mailto:kirk.korista@WMich.edu)) Department of Physics, MS 5252, Western Michigan University, 1903 W. Michigan Avenue, Kalamazoo, MI 49008-5252. Review of applications will begin February, 2013, and applications will be accepted until the position is filled.



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### **Faculty Position in Physics Education Research - Rochester Institute of Technology**

The School of Physics and Astronomy at the Rochester Institute of Technology invites applications for a tenure-track faculty position in the area of physics education research, to begin August 2013. The position is expected to be at the rank of assistant professor; candidates with experience and qualifications consistent with appointment at a higher rank are also invited to apply. Candidates must have a Ph.D. in physics or a closely related field, postdoctoral (research or teaching) experience, the ability to teach courses at all levels of the undergraduate physics program, and a record of ongoing research and publication within physics education research. The position sets teaching and scholarship as coequal priorities; the successful applicant will be expected to produce peer-reviewed publications at a rate consistent with teaching load. Applicants must be legally eligible to work in the United States beginning August 19, 2013. We are seeking an individual who has the ability and interest in contributing to a community committed to Student Centeredness; Professional Development and Scholarship; Integrity and Ethics; Respect, Diversity and Pluralism; Innovation and Flexibility; and Teamwork and Collaboration. Select to view links to RIT's [core values](#), [honor code](#), and [diversity commitment](#).



**HOW TO APPLY:** Applications must be submitted online at <http://careers.rit.edu/faculty> Search: 241BR. Submit all application materials as one PDF file that includes a cover letter, curriculum vitae, a description of research goals, teaching statement, and a list of three current professional references. Within the cover letter, candidates should include a statement about their '[contributions to diversity](#)'. Candidates should also arrange to have the three references send letters of support directly to Chair, Faculty Search Committee, School of Physics and Astronomy, Rochester Institute of Technology, 85 Lomb Memorial Drive, Rochester, NY 14623-5603. To receive full consideration, all application materials should be received by December 28, 2012. Email inquiries regarding the position should be sent to [PhysSrch@rit.edu](mailto:PhysSrch@rit.edu).

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### University of Nevada, Reno - POSTDOC – EXP. AMO/GRAVITATIONAL PHYSICS

Applications are invited for a postdoctoral position in the experimental atomic/optical physics group of Andrew Geraci at University of Nevada, Reno, to begin in Summer of 2013. The opportunity exists to participate in a cavity opto-mechanics experiment involving optically-levitated and cooled dielectric nanospheres. The spheres will be used for ultra-sensitive force detection and tests of non-Newtonian gravity at the micron length scale. The successful applicant will have a PhD in experimental physics. Applicants with experience in precision measurements, laser interferometry, optical trapping, cavity opto-mechanics, or micro-electro-mechanical systems (MEMS) are particularly encouraged to apply. This project is funded by the National Science Foundation grant NSF PHY-1205994 and the University of Nevada. The initial duration of this appointment will be for one year, with an extension for an additional year based on satisfactory progress. Exact starting date is negotiable. Send any questions to [ageraci@unr.edu](mailto:ageraci@unr.edu). <https://www.unrsearch.com/postings/12036>. Submit a cover letter, curriculum vitae and a brief statement of research interests. In addition, candidates should arrange to have two letters of recommendation emailed directly to [ageraci@unr.edu](mailto:ageraci@unr.edu).



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### Science foundation Arizona Bisgrove postdoctoral scholars

The Bisgrove Postdoctoral Scholars program (sponsored by [Science Foundation Arizona](#)) is designed to attract the nation's best early career scientists and engineers who exhibit the potential for outstanding competence and creativity in their research areas, strong communication skills, a passion for communicating the importance of their research to society, and a keen interest in educational science outreach to the community. Bisgrove Scholars will receive an annual stipend of approximately \$60,000, benefits and additional funding for research expenses. The Bisgrove appointment is renewable on a year-to-year basis for a maximum initial term of two years, contingent upon the availability of funds. For more information contact: Jennifer Cason, Director of Graduate Support Initiatives, [jennifer.cason@asu.edu](mailto:jennifer.cason@asu.edu)



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### Faculty Position in Astrophysical Dynamics - University of California, Los Angeles

The Department of Physics and Astronomy at UCLA invites applications for a tenure-track ladder faculty appointment in the area of astrophysical dynamics, including applications to stellar systems, exoplanets and solar system bodies, with an anticipated start date of July 1, 2013. The Department is seeking outstanding candidates, preferably with a theoretical research interest and a commitment to excellence in teaching. A junior-level appointment is anticipated, but a senior-level appointment may be considered. The successful applicant will have the opportunity to capitalize on the broad astronomy and planetary science programs at UCLA, and on the resources of the University of California Observatories. These resources include the Lick Observatory telescopes on Mt. Hamilton, the two 10-meter Keck telescopes, and the future thirty-meter telescope.



Candidates should submit their curriculum vitae, statement of research interests, and publication list, and arrange to have three letters of recommendation sent as soon as possible and no later than the **deadline of March 15, 2013** for full consideration. The position will remain open until filled. Inclusion of the candidate's ResearcherID at the top of the publication list is encouraged. Refer to Tracking # 1000-1213-01 on all correspondence.

Applications should be sent to: [ASTROD@physics.ucla.edu](mailto:ASTROD@physics.ucla.edu).

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### Jefferson Science Associates/ Jefferson Lab Distinguished Theory Student Fellowship

Jefferson Lab and Jefferson Science Associates LLC invite applications for the JSA/JLab Distinguished Theory Student Fellowship, a program creating a new generation of theoretical physicists. This fellowship is open to students in the final year of their undergraduate degree programs, and will be based at the US Department of Energy's Thomas Jefferson National Accelerator Facility in Newport News Virginia.



The fellowship recipient will be a full member of Jefferson Lab's Theory Center and will be enrolled at Hampton University, Old Dominion University or The College of William & Mary, where he or she will obtain a Ph.D. In addition to a stipend, the fellowship provides a supplement of \$3,000 per annum, and a grant in the first year of \$2,000 for a computer books and supplies. At the end of the first year, the fellowship will be supported by Jefferson Laboratory, provided he or she pursues a program of research of interest to Jefferson Lab's Theory Center.

Applications, which must include an academic transcript, three letters of recommendation, and a one-page description of interest in Jefferson Lab's program, should be submitted by 8th February 2013 to: Search Committee, JSA/JLab Distinguished Theory Student Fellowship, Jefferson Lab, 12000 Jefferson Avenue, Suite #1, Newport News, VA 23606 USA

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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. Lopez, [jorgelopez@utep.edu](mailto:jorgelopez@utep.edu). <http://www.hispanicphysicists.org/>.