NSHP at SACNAS Meeting

NSHP again joined SACNAS at the 2014 National Conference in Los Angeles. NSHP participated in Conversations with a Scientists: Physics and Astronomy, hosted Science Cafe: A Spacetime Odyssey and organized 5 scientific symposia in cosmology, space science, nuclear physics, material science and physics educational research.

NSHP Science Cafe at SACNAS. The theme of this year was the TV series Cosmos: A Spacetime Odyssey. About 40 people sat around 6 tables to explore cosmological ideas and questions in an informal setting that led to lively and free flowing discussion.

NSHP members served as judges and mentors to the numerous physics, astronomy and material science presenters of posters and talks. NSHP also held its annual meeting at SACNAS and reported to the membership on the events of the past year.

NSHP session “Conversations with a Scientist”, 60 students discussed career possibilities with faculty in physics, astronomy, and geophysics

This Month

Edmundo Garcia featured in Hispanic Physicists

Dr. Edmundo Garcia is a professor of physics at the Chicago State University, and performs research in the area of relativistic heavy ion reactions. In his Spanish language radio capsule Edmundo narrates his origins, describes his area of research, and his participation in the discovery of the quark-gluon plasma, a new state of matter. Edmundo has performed research both at Brookhaven National Lab and at CERN’s Large Hadron Collider, the two largest and most powerful accelerators in the world. More current information about Edmundo can be found in his web page (http://www.csu.edu/cas/chemistryphysicsengineering/faculty/garcia.htm) and the Spanish language 2 minute capsule can be downloaded here http://www.visual-physics.org/Hispanic-Physicists/HP-Edmundo-Garcia.html, please forward to your local high schools and Spanish language radio stations.
Graduate Studies in Astrophysics at RIT
The Rochester Institute of Technology MS/PhD program in Astrophysical Science and Technology (AST) invites applications from students interested in pursuing graduate studies with us. The AST program offers the chance to work with experts in the fields of observational, theoretical and computational astrophysics, detector technology, numerical relativity and gravitational wave astronomy, in a congenial, student-centered atmosphere. You can download a brochure on this webpage: http://www.rit.edu/cos/astrophysics/how-apply-ast-program or you can find more information about our program at: http://www.rit.edu/cos/astrophysics/
The application deadline is 15 January, 2015. Questions can be sent to astroinfo@astro.rit.edu.

The Medical Physics at San Diego State University
is accepting applications for Fall 2015
The Medical Physics program at San Diego State University is accepting applications for Fall 2015. Our graduate program in medical physics has been accredited by CAMPEP since January 2010; the accreditation was recently extended to December 31, 2019. Application forms for the program are available online at http://arweb.sdsu.edu/es/admissions/grad/programs/med_physics.html and all supporting documents must be submitted to the Program Coordinator, Marcia Queen (mqueen@mail.sdsu.edu).

CRISP Research Experiences for Undergraduates
The goal of the CRISP REU program is to offer high-quality, state-of-the-art research experiences, enrichment activities and professional development events to undergraduates. Current research topics range from thin film growth and characterization to friction and manipulation at the atomic level with projects involving computation, simulation, fabrication, characterization and image processing. Materials systems included semiconductors, dielectrics, optical materials and bio-materials.

Program Dates: June 1 - July 27, 2015

Application: Starting November 1, candidates must apply directly to the Yale SURF program through the Leadership Alliance Summer Research-Early Identification Program. Students must also complete the CRISP Supplementary Application to indicate interest. The entire application package, including two letters of recommendation and official transcript(s), must be received by February 01, 2015, more information: http://crisp.southerncst.edu/images/f/f6/2015_REU_Residential_FINAL.pdf  Please share with your students!

Ernest F. Hollings and Educational Partnership Program scholarships
The National Oceanic and Atmospheric Administration (NOAA) is pleased to announce the availability of scholarships for undergraduate students majoring in disciplines related to oceanic and atmospheric science, research, or technology, and supportive of the purposes of NOAA’s programs and mission. Over 100 students are selected each year for participation in the Ernest F. Hollings (Hollings) and Educational Partnership Program (EPP) scholarship programs. These scholarships include support for two years of undergraduate study and summer internship opportunities at NOAA facilities across the country.

For information on program benefits and how to apply, visit our web sites:
I'm currently assisting the ICTP (together with others) in the creation and development of Ph.D. programs in physics and mathematics in Central America and the Caribbean (these will be followed by similar programs in biology, chemistry and other fields). Information about these programs is found on the website of the new Mesoamerican Center for Theoretical Physics (MCTP), an ICTP-Center in Chiapas, Mexico, led by Arnulfo Zepeda:


--You are encouraged to peruse the rest of the website; please notice another active supporter of these programs is the Sistema de Universidades Estatales del Caribe Colombiano (SUE-Caribe, Colombia)--

The programs started this fall, with its first cohort of students (Physics and Math). One of the key elements for the success of these programs will be the participation of individuals and institutions from other geographical regions. In particular, it's natural to see a strong participation of institutions in the Americas. Mexico and Colombia are very strong supporters, and we believe others may want to have an active participation as well. Hence this message. Of particular interest at this time is to know of individuals who might want to participate as possible thesis advisers/co-advisers.

Notice in the USA I am the only one appearing at this time (in physics). I am asking Dave and Jorge to publicize this throughout the NSHP membership, and likewise Amy and Alan within the APS(perhaps through FIP?). I know Brazilians have been approached by different sources, but it can't hurt to have Belita, Marcia and Ron give us a hand as well. Rafa, your math contacts in the region could also be quite useful...

I will be delighted to try to answer any questions about these programs, but in the hope of making the process more efficient, if there are concrete questions about possible candidates and their countries, I prefer that they be addressed directly to Eleicer Ching (physics; eleicer.ching@utp.ac.pa) and Jose Laguardia (math; jose.laguardia@utp.ac.pa); feel free to cc me of course.

Thanks in advance for your interest in our Central-American Ph.D. programs; we're very excited about these developments, and thankful dearly to Fernando Quevedo, director of the ICTP, for his continuous interest and support in manifold ways.

Cheers,

Carlos Ordonez, cordonez@central.uh.edu

---

**Kenyon College - Assistant Professor of Physics**

Kenyon College seeks a physicist for a tenure-track position at the assistant professor level beginning in July, 2015.

The successful applicant must demonstrate the ability to teach at all levels of a rigorous undergraduate curriculum and will have earned a Ph.D. in physics. Outstanding candidates who are ABD may be considered, but post-doctoral experience is preferred. The candidate’s research specialty may involve any area of theoretical, computational, or experimental physics. The ability to involve undergraduates in continuing physics research will be regarded as a definite plus. The department has an integrated computational physics component in both theoretical and experimental courses. Preference will be given to candidates who can contribute to this component both in courses for physics majors as well as in general education courses. The department is committed to building a culturally diverse educational environment. Applicants are requested to include in their cover letter information about how they will further this goal. The candidate should also explain in their cover letter why they are a good fit for our particular position.

Kenyon College, located on an idyllic campus in rural central Ohio, is ranked in the top tier of national liberal arts colleges and has a reputation for outstanding teaching and scholarship. The Physics Department is housed in a spacious and well-equipped building constructed in 2000. With this new hire, our staff will include seven faculty members and a laboratory director, and we graduate about 8 physics majors each year. Faculty members teach two or three lecture courses or lab sections each semester, for a total of five classes per year. For more information about our department, please visit our web site at http://physics.kenyon.edu. Kenyon offers a competitive salary and an excellent benefits package, including provisions for a spouse or domestic partner. For application instructions, visit: http://employment.kenyon.edu. **Review of applications will begin December 15, 2014.**
Faculty Position in Atomic, Molecular, and Optical Physics

The Department of Physics and Astronomy at the University of California, Los Angeles invites applications for a tenure-track faculty position in atomic, molecular, and optical (AMO) physics. It is anticipated the appointment will be made at the assistant professor rank, but applicants qualified for the associate professor rank will also be considered. Topics of interest are at the interface between AMO and condensed matter physics, especially in quantum optics and quantum micromechanical systems, ultracold quantum gases (atomic and molecular), and quantum information, simulation, and entanglement. Candidates with different experimental perspectives within AMO physics, broadly defined, are also encouraged to apply.

The department is seeking outstanding candidates with the potential for exceptional research, and excellence in teaching, and also a clear commitment to enhancing the diversity of the faculty, graduate student population, and of the majors in physics and astronomy. Candidates with broad interests and creative approaches to important problems are especially encouraged to apply. The successful candidate will have the potential to interact with scientists and engineers across a wide spectrum of disciplines at UCLA, to conduct inter-disciplinary research, to develop new and emerging areas and to help develop new interdisciplinary initiatives. State-of-the-art clean rooms and equipment for nanofabrication are accessible in the School of Engineering and Applied Sciences and the California NanoSystems Institute on campus. A Ph.D. (or equivalent) is required. The anticipated start date is July 1, 2015 and salary will be commensurate with education and experience.

Apply online via UCLA Academic Recruit: https://recruit.apo.ucla.edu/apply/JPF00501. Please submit curriculum vitae, statement of future research plans, statement of teaching interests, and a list of publications. In addition, candidates must arrange for 3 letters of reference to be uploaded to UCLA Academic Recruit.

Questions about the application process may be directed to chair@physics.ucla.edu. Please refer to JPF00501.

To assure consideration, all application materials and letters should be received by December 31, 2014.

Faculty Position in Theoretical Elementary Particles

The Department of Physics and Astronomy at the University of California, Los Angeles is seeking candidates for a tenure-track faculty position in theoretical elementary particles. It is anticipated the appointment will be made at the assistant professor rank, but applicants qualified for the associate professor rank will also be considered. Faculty members at UCLA conduct research, teach undergraduate and graduate physics courses, and supervise graduate participation in research. We are particularly interested in candidates doing research in areas that include perturbative and non-perturbative quantum field theory, particle physics and model building beyond the Standard Model, collider phenomenology, astroparticle physics and neutrino physics and astrophysics.

The University of California seeks to recruit and retain a diverse workforce as a reflection of our commitment to serve the people of California, to maintain the excellence of the University, and to offer our students richly varied disciplines, perspectives and ways of knowing and learning. A Ph.D. (or equivalent) is required. The anticipated start date is July 1, 2015 and salary will be commensurate with education and experience.

Apply online via UCLA Academic Recruit: https://recruit.apo.ucla.edu/apply/JPF00582. Please submit cover letter, curriculum vitae, publication list, and statement of research interests. In addition, candidates must arrange for 3 to 6 letters of reference to be uploaded to UCLA Academic Recruit.

Questions about the application process may be directed to chair@physics.ucla.edu. Please refer to JPF00582.

To assure consideration, all application materials and letters should be received by December 31, 2014.
The UCLA Department of Physics and Astronomy invites applications for a full time, tenure-track, position in the area of Theoretical/Computational Biological Physics. It is anticipated the appointment will be made at the assistant professor rank, but applicants qualified for the associate professor rank will also be considered. UCLA offers a wide spectrum of related disciplines in the Physical and Life Science, as well as facilities such as the Institute for Digital Research and Education, the Institute for Pure and Applied Mathematics and the California NanoSystems Institute. The successful candidate will have the potential to interact with scientists in other departments to conduct inter-disciplinary research. We are seeking outstanding candidates with the potential for exceptional research, excellence in teaching, and also a clear commitment to enhancing the diversity of the faculty, graduate student population, and of the majors in Physics and Astronomy. Applicants must have a Ph.D. or equivalent in Physics and have an outstanding record of research achievement in the areas of Theoretical and/or Computational Biological Physics. The successful candidate is expected to contribute to the development of the UCLA Biophysics Major and the Center for Biological Physics. The anticipated start date is July 1, 2015 and salary will be commensurate with education and experience.

Apply online via the UCLA Academic Recruit: https://recruit.apo.ucla.edu/apply/JPF00553. Please submit cover letter, curriculum vita, including publication list, statement of research accomplishments and description of future research plans, statement of teaching experience and interest. In addition, candidates must arrange for 3 letters of reference to be uploaded to UCLA Academic Recruit.

Questions about the application process may be directed to chair@physics.ucla.edu. Please refer to JPF00553.

Applications are due by December 31, 2014 and review of applications will begin on December 19, 2014.

---

UCSD - Assistant Professor in Experimental Particle Physics

THE DEPARTMENT OF PHYSICS within the Division of Physical Sciences at UC San Diego (http://physics.ucsd.edu) invites applications for an Assistant Professor faculty position in Experimental Particle Physics defined broadly. We seek outstanding candidates who will work in areas of particle physics other than colliding beams, such as direct or indirect Dark Matter detection, Neutrino Physics, and experimental Cosmology. Exceptionally strong candidates from colliding beams experiments who propose shifting their focus towards one of these areas are also encouraged to apply. All candidates must have a Ph.D. in Physics, or a closely related field. The Department is committed to academic excellence and diversity within the faculty, staff, and student body. The successful candidate will be judged on research and teaching accomplishments and leadership, as well as on potential for leadership in areas contributing to diversity, equity and inclusion. Salary is commensurate with qualifications and based on University of California pay scales.

Review of applications will commence on November 21, 2014. Applications are to be submitted online at: https://apol-recruit.ucsd.edu/apply/JPF00674. Please submit a cover letter, curriculum vitae, statement of past and proposed research, statement of proposed teaching, and a separate statement on past experience and leadership in equity, diversity, and inclusion and/or proposed future contributions (see http://facultyequity.ucsd.edu/Faculty-Applicant-C2D-Info.asp for further information). Candidates must also arrange to have three to five letters of reference addressing research, teaching and professional service posted to the above website.
Lecturer with Potential Security of Employment – Dept. of Physics UCSD

The Department of Physics within the Division of Physical Sciences at UC San Diego (http://physics.ucsd.edu) invites applications for a tenure-track Teaching Professor (Lecturer with Potential Security of Employment). This series parallels that of the standard, research-focused series, but the emphasis is on excellence in teaching. The Department is committed to academic excellence and diversity within the faculty, staff, and student body. A successful candidate will be judged on scientific background and teaching accomplishments, as well as on potential for leadership in areas contributing to diversity, equity, and inclusion. Salary is commensurate with qualifications and based on University of California pay scale.

We are seeking an outstanding teacher who wishes to have a permanent, full-time instructional position on an academic-year basis. The position will involve:

- teaching physics courses, with emphasis on introductory laboratory and lecture courses for non-majors;
- developing curriculum, including effective new ways of organizing class time, demonstrating physics principles and using instructional technology to enhance student learning;
- training teaching assistants;
- advising members of the department on pedagogical techniques and course content;
- coordinating various administrative aspects of the undergraduate instructional program;
- participating in education-related committees, student recruitment and outreach, and efforts to secure extramural funding for educational program development;
- demonstrating educational leadership beyond campus through active participation in conferences, workshops, service, sharing of materials, and working with STEM teachers.

Candidates must have a Ph.D. degree in physics (any area) or a closely related scientific field, a record of excellence in teaching, and strong writing and interpersonal skills.

Review of applications will commence on December 1, 2014 until the position is filled. Applications should be submitted online at https://apol-recruit.ucsd.edu/apply/JPF00684. Please submit a cover letter, curriculum vitae, a synopsis of teaching experience/philosophy and professional goals and a separate statement on past experience and leadership in equity, diversity, inclusion and/or proposed future contributions (see http://facultyequity.ucsd.edu/Faculty-Applicant-C2D-Info.asp). Candidates must also arrange to have three to five letters of reference that address teaching, research, and professional service posted to the above website.

UCSD - Tenure-Track Positions in Physics, Astronomy, or Astrophysics

THE DEPARTMENT OF PHYSICS within the Division of Physical Sciences at UC San Diego (http://physics.ucsd.edu) invites applications for tenure-track faculty positions. This is a broad search that is open to all research areas of interest to the Department of Physics, including astronomy/astrophysics, atomic physics, biophysics, condensed matter physics, elementary particle physics, plasma physics, physics education, and quantum information.

Successful candidates must have a Ph.D. in Physics or a closely related field and demonstrated potential for a recognized program of excellence in both teaching and research. Preferred candidates will have the potential for leadership in areas contributing to diversity, equity and inclusion and will have a desire to play a future role in helping to shape and expand the University’s diversity initiatives (http://diversity.ucsd.edu/ and http://academicaffairs.ucsd.edu/faculty/diversity-opportunities/index.html). We especially welcome candidates who have experience with and wish to contribute to programs that increase the access and success of underrepresented students and faculty in the sciences.

Review of applications will commence on November 21, 2014. Applications are to be submitted online at: https://apol-recruit.ucsd.edu/apply/JPF00681. Please submit a cover letter, curriculum vitae with a list of publications, statement of past and proposed research, statement of past and proposed teaching, and a statement on past experience and leadership in equity, diversity, and inclusion, and/or proposed future contributions (see http://facultyequity.ucsd.edu/Faculty-Applicant-C2D-Info.asp for further information). Candidates must also arrange to have three to five letters of reference addressing research, teaching and professional service posted to the above website by the deadline.
UCSD - Assistant Professor Faculty Position In Condensed Matter Theory

THE DEPARTMENT OF PHYSICS within the Division of Physical Sciences at UC San Diego (http://physics.ucsd.edu) invites applications for an Assistant Professor faculty position in Theoretical Condensed Matter Physics. Research areas of interest include strongly correlated electronic systems, topological phases of matter, graphene and other low-dimensional systems, quantum information and computation, soft condensed matter, disordered systems and localization, computational condensed matter, superconductivity, magnetism, materials design, cold atom physics, statistical physics, nonequilibrium phenomena in condensed matter, and nanoscience.

All candidates must have a Ph.D. in Physics or a closely related field. The Department is committed to academic excellence and diversity within the faculty, staff, and student body. The successful candidate will be judged on research and teaching accomplishments, as well as on potential for leadership in areas contributing to diversity, equity and inclusion. Salary is commensurate with qualifications and based on University of California pay scales.

Review of applications will commence on November 21, 2014. Applications are to be submitted online at: https://apol-recruit.ucsd.edu/apply/JPF00658. Please submit a cover letter, curriculum vitae, statement of past and proposed research, statement of proposed teaching, and a separate statement on past experience and leadership in equity, diversity, and inclusion and/or proposed future contributions (see http://faculthequity.ucsd.edu/Faculty-Applicant-C2D-Info.asp for further information). Candidates must also arrange to have three to five letters of reference addressing research, teaching and professional service posted to the above website.

The Department is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching and service.

Detector physicist - National Superconducting Cyclotron Laboratory - Michigan State University

The National Superconducting Cyclotron Laboratory (NSCL) at Michigan State University (MSU) is searching for a detector physicist to join the NSCL Detector Laboratory. The duties include support and optimization of the existing devices used in the NSCL User Program and the development of new detector technology in collaboration with NSCL's research groups that will enhance the capabilities of the laboratory. The candidate will also be expected to take an active role in the design, implementation and support of experimental devices for the Facility for Rare Isotope Beams (FRIB).

An advanced degree in physics or chemistry in the area of nuclear, particle, or high energy experimental physics is required, as well as experience with construction and development of particle and radiation detectors such as ion chambers, gas proportional counters, position tracking detectors, scintillators, silicon, and HPGe detectors. Operational experience with larger detector setups in experimental devices, including detector maintenance and data acquisition, is desired. More information and instructions on how to apply for this position can be found here: http://www.nscl.msu.edu/ourlab/employment/1664

2015 NSSC Summer Research Fellowship Program

The Nuclear Science and Security Consortium (NSSC) is accepting applications for the 2015 NSSC-MSI Summer Research Fellowship Program. Applications are due on February 2, 2015. Applicants must be U.S. citizens. Additional information and required application forms are available on the NSSC website http://nssc.berkeley.edu/funding-opportunities.html.

Eligibility. The summer research fellowship program is open to any currently registered undergraduate students of at least Junior standing and currently registered graduate students from a qualifying Minority Serving Institute (MSI). Applicants must be US citizens to apply.

Application Format. To apply for the NSSC-MSI Summer Research Fellowship, a student must provide all of the information requested on application forms. The forms are available on the NSSC website http://nssc.berkeley.edu/funding-opportunities.html.

Applications are due on February 2, 2015 to NSSC management at nssc_info@berkeley.edu.
The Mickey Leland Energy Fellowship (MLEF) Program provides students with an opportunity to gain and develop research skills with the Department of Energy’s Office of Fossil Energy for 10 weeks over the summer. For 20 years, this program has increased awareness of DOE research opportunities to students pursuing STEM degrees (science, technology, engineering and math). The goal of the program is to improve opportunities for women and minority students in these fields, however all eligible candidates are encouraged to apply. Stipends start at $600 per week and eligible Fellows will receive an additional travel and housing allowance. For more information, visit http://orise.orau.gov/mlef/.

Eligibility: Be at least 18 years of age at time of application; Be a U.S. Citizen; Have a cumulative GPA of at least 3.0; Be currently enrolled full-time in an accredited college or university (sophomore year or higher) or had a Ph.D. conferred on or after January 2, 2014 in a science, technology, engineering or mathematics (STEM) degree

Application closes Friday, January 2, 2015 – click http://orise.orau.gov/mlef/ to get started NOW!

Student Travel Grant Program

IPAC’15 – the 6th International Particle Accelerator Conference

Richmond, VA, May 3-8, 2015,

No, it’s not the winner of this year’s Halloween costume competition. It’s Alejandro Castilla, a graduate student at Old Dominion University conducting research on some of the world’s most advanced accelerator technologies at the Jefferson Lab in Newport News, Virginia. He’s planning to go to IPAC’15 this May 2015 in Richmond and so should you! Apply now for a for a student travel grant.

The Sixth International Particle Accelerator Conference (IPAC’15) will be held in May 2015 and is being organized at the Greater Richmond Convention Center in Virginia by the Jefferson Lab, a DOE Office of Science National Laboratory. Anticipated attendance is expected to be on the order of 1,200 scientists, engineers, students, and equipment vendors for this week-long event. The IPACs are an annual series of conferences that rotate between the Americas, Europe, and Asia. Previous venues were Kyoto (2010); San Sebastian, Spain (2011); New Orleans (2012); Shanghai (2013); and Dresden, Germany (2014). Next year’s IPAC in Richmond presents an excellent opportunity to highlight US accelerator capabilities and for US students and researchers to participate in international presentations on accelerator science and engineering and to meet and interact with firms building accelerators and their components. A tour of Jefferson Lab and other technology facilities are also part of the program.

The IPAC’15 organizing committee is pleased to announce that it expects to receive funding from the National Science Foundation and the APS to support a Student Grant Program for undergraduate and graduate students. The Student Grant Program will fund registration, lodging, and food and may partially support travel expenses. The deadline for applications and reference letters is December 3, 2014.

See http://www.ipac15.org/Student.php for information on how to apply. Please note that the students receiving grants must present their work in the special student poster session on May 3, 2015, submit their contributions for the proceedings by April 29, 2015, and act as scientific secretaries during one or two conference sessions. Contact Hari Areti (areti@jlab.org) at Jefferson Lab for more information.
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/.