

The Hispanic Physicist

The Newsletter of the National Society of Hispanic Physicists

Year 17

October 16, 2013

Ana Maria Rey wins MacArthur Grant

Ana Maria Rey, a theoretical physicist at JILA and assistant research professor in the University of Colorado's physics department, was named a 2013 recipient of the MacArthur Fellowship last September. Rey is one of 24 recipients to receive \$625,000 over the following five years. Rey, the only atomic physicist on the list, received the award for "advancing our ability to simulate, manipulate, and control novel states of matter through fundamental conceptual research on ultra-cold atoms."



NSHP Congratulates Ana Maria Rey!

Ciencia.gov a new Science Portal in Spanish

Ciencia.gov is the Spanish version of Science.gov. It provides the same breadth and depth in science search as Science.gov, covering over 200 million pages of authoritative U.S. government science information, and includes research and development results from 17 organizations within 13 federal science agencies. Free access is provided to over 55 scientific databases and more than 2,100 selected scientific web sites. Integrating Microsoft's Translator, Spanish-language queries to Ciencia.Science.gov initiate searches of U.S. databases and web sites with results appearing in Spanish. This represents an innovative use of existing commercial technology to broaden public access to federal science information



**ATTENTION:
MASTER'S AND
PHD STUDENTS**



**NASA Langley Research Center
RESEARCH ANNOUNCEMENT**

**SUMMER 2014 PAID (STIPEND) RESEARCH INTERNSHIP OPPORTUNITIES IN
MULTI-FUNCTIONAL NANOTUBE POLYMER COMPOSITES RESEARCH**

**Research Directorate
Advanced Materials & Processing Branch (AMPB)**

Application Deadline

- Saturday, February 1, 2014, in OSSI/SOLAR <https://intern.nasa.gov/solar>

Assistant Professor in Physics – Experimental-Tenure-Track Position

The Department of Physics of Southern Illinois University Carbondale (SIU Carbondale) invites applications for one tenure-track Assistant Professor position in experimental physics, starting 8/16/2014. We are seeking an experimentalist working in one of the following areas: solid state (preferably in applied magnetism); any of the experimental approaches to quantum computation, cryptography, and information processing, synthesis and/or characterization of nanomaterials (preferably with an emphasis in energy storage, or, in nanodevices and nanosensors); non-linear optics; or, applied physics. We are looking for applicants that will complement our current areas of research and strengthen our doctoral

program in Applied Physics. Start-up funds are available at a level that will enable the successful applicant to establish a nationally competitive research effort. Applicants must hold a Ph.D. in Physics or in a closely related field, must have trained as an experimentalist, must have postdoctoral experience with evidence of excellence in scholarship, and must have some experience teaching physics. The successful candidate is expected to pursue a vigorous research program, publish in high quality professional journals, actively seek and attract external funding, teach undergraduate and graduate courses, and, appropriately contribute to the service mission of the Department.

Applicants should submit electronically, the following: a letter of application; a curriculum vitae; a research plan of no more than two pages in length that includes a statement of how students, at all levels, will be integrated into the research program; a statement of teaching philosophy and teaching experience, of no more than one page in length; and, contact information, including e-mails, for four professional references. Send the application materials to: spleasure@physics.siu.edu, or to: Search Committee, Department of Physics, Neckers 483 MC 4401, 1245 Lincoln Dr., SIU Carbondale, Carbondale, IL 62901. Review of the applications will begin on 11/15/2013, and will continue until the position is filled.

Postdoctoral positions - Astrophysical Sciences - Princeton University

The Department of Astrophysical Sciences, Princeton University, anticipates offering a number of postdoctoral or more senior research positions in theory, observation and instrumentation, including (but not limited to): the Lyman Spitzer, Jr. postdoctoral position in Astrophysics, the Joint Postdoctoral Fellowship with Carnegie Observatories and Princeton University, and positions in plasma astrophysics, star formation, extragalactic astronomy and software development. We encourage applications from those working in all areas of astronomy and related fields.

The Department of Astrophysical Sciences at Princeton is a major partner in the Atacama Cosmology Telescope and the Large Synoptic Survey Telescope, and is collaborating with the Japanese astronomical community on large imaging and spectroscopic surveys with the Subaru Telescope, focused on extragalactic astronomy and planetary systems around other stars. There are also strong research groups with interests in astrophysics in the Physics, Geosciences, and Mechanical and Aerospace Engineering Departments and at the nearby Institute for Advanced Study.

For details on specific positions, see <http://www.princeton.edu/astro/resources/job/jo/index.xml>. Applicants should hold a Ph.D. degree at the time of appointment, and must apply via the web at: <http://jobs.princeton.edu> (Requisition Number: 1300597). The application should include curriculum vitae, bibliography, a description of past research and future plans, and contact information for three references. Any questions should be directed to postapp14@astro.princeton.edu.

All applications received by November 15, 2013 will be fully considered, but applications will continue to be accepted until the positions are filled. Only web submissions will be considered. All applications will be considered for all postdoctoral positions available in the department, but you will be asked in the application form which positions you are interested in. Princeton University is an equal opportunity employer and complies with applicable EEO and affirmative action regulations.

TENURE-TRACK FACULTY POSITIONS IN *Astrophysics/Astronomy* - UC San Diego

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 areas of Astrophysics/Astronomy.

Successful candidates must have a Ph.D. in Physics, Astrophysics, Astronomy or a closely related field and have 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/>). 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.

The Department is committed to academic excellence and diversity within the faculty, staff, and student body. A 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 scale.

Applications are due on November 1, 2013 and are to be submitted online at: <https://apol-recruit.ucsd.edu/apply/JPF00427>. 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.

Stanford University - Director, Kavli Institute for Particle Astrophysics and Cosmology (KIPAC) and Professor

Stanford University and SLAC National Accelerator Laboratory seek exceptional applicants for the position of Director of the Kavli Institute for Particle Astrophysics and Cosmology (see <http://kipac.stanford.edu/kipac/>). We are seeking a visionary leader who will continue to foster the vibrant intellectual environment at Stanford and SLAC in particle astrophysics and cosmology, while also helping to identify and realize future major science opportunities in these fields.

Applicants must have a world-recognized record of accomplishment in research in the areas of astrophysics, particle astrophysics and/or cosmology, a record of outstanding scientific leadership, and a commitment to teaching and education. The successful candidate will be appointed to the faculty at the rank of Professor (with tenure), jointly between the Department of Physics and the Department of Particle Physics and Astrophysics at the SLAC National Accelerator Laboratory.

KIPAC was inaugurated in 2003 as a joint independent institute of Stanford University and SLAC National Accelerator Laboratory to serve as a bridge between the disciplines of astrophysics, cosmology and particle physics. KIPAC's members work in the Physics and Applied Physics Departments on the Stanford campus and at the SLAC National Accelerator Laboratory. Its mission is to bring the resources of modern computational, experimental, observational and theoretical science to bear on our understanding of the universe at large. There are currently 25 Stanford and SLAC PPA faculty and 19 staff who are members of KIPAC.

Stanford University is an equal opportunity employer and is committed to increasing the diversity of its faculty. It welcomes nominations of, and applications from, women and members of underrepresented groups, as well as others who would bring added dimensions to the University's research and teaching missions.

Applicants should send materials to the search committee, co-chaired by Prof. Roger Romani and Prof. Aaron Roodman, by Dec 1, 2013. Candidates should include a cover letter, curriculum vitae, publication list, and the names of three referees to: the KIPAC Director Search Committee, c/o Amy Rutherford, 2575 Sand Hill Rd., MS 0075, Menlo Park, CA 94025; amyr@slac.stanford.edu.

University of Chicago - Faculty Positions in the Department of Physics at the University of Chicago

The Department of Physics and the Enrico Fermi Institute at the University of Chicago invite applications for the position of Assistant Professor (tenure-track) and Associate Professor. The search area includes, but is not limited to, gravitation theory (such as numerical relativity and gravitational wave astronomy) and theoretical cosmology (especially connections with particle physics and gravitation).

Candidates must have a doctoral degree in physics or a related field prior to beginning the appointment and are expected to contribute to undergraduate and graduate teaching programs while engaging in forefront research.

Applicants must apply online at The University of Chicago academic careers website and upload a cover letter, curriculum vitae with a list of publications, and a brief research statement. The cover letter should be addressed to Professor Robert Wald, Chair, Faculty Search Committee. In addition, three recommendation letters will be required. Reference letter submission information will be provided during the application process. Review of applications and recommendation letters will begin on November 15, 2013 and continue until the position is filled. To apply for the position of Assistant Professor (tenure track), go to <http://tinyurl.com/ltff7c>. To apply for the position of Associate Professor, go to <http://tinyurl.com/mz7bhol>. This position requires an outstanding research record.

University of Chicago - *GRAINGER POSTDOCTORAL FELLOWSHIP IN EXPERIMENTAL PHYSICS*

The Department of Physics at The University of Chicago invites applications for the 2014-2016 Grainger Postdoctoral Fellowship in Experimental Physics. Candidates must be outstanding early-career scientists who will have received a doctoral degree in Physics, Astronomy or related fields by the fall of 2014. This two-year award carries an annual stipend of \$54,000, and an allocation of \$6,000 per year for research expenses. The purpose of this fellowship is to enable an early-career experimentalist to work either independently or in close association with the members of the Physics Department in areas of mutual interest. Appointment would be at the University internal rank of Postdoctoral Scholar. Please note that the position of Postdoctoral Scholar is open only to those individuals who are less than seven years beyond attainment of the Ph.D. degree. There are no teaching responsibilities with this position.

The Physics Department's main experimental activities include:

- Astrophysics
- Atomic physics
- Biophysics
- Condensed matter physics
- Cosmology
- Elementary particle physics
- Nuclear physics

Instructions and a link to the fellowship application can be found at <http://grainger-fellow.uchicago.edu/>

Candidates must apply via the website, and will be asked to provide the following documents: curriculum vitae, list of publications and preprints, and description of research interests to be pursued at The University of Chicago.

In addition, at least three letters of recommendation will be required from faculty members or senior research scientists who are active in the field of study in question. Applicants must provide the names and contact information, including email addresses, for each referee. A link will be provided by the system for uploading letters. Candidates are then responsible for having their referees upload letters using the given link. To ensure full consideration, the required materials and the letters of reference must be received by December 15, 2013. Contact grainger-fellow@hep.uchicago.edu with any questions. Information on the Physics Department can be found at <http://physics.uchicago.edu/>.

The Department of Chemistry at the University of North Texas invites applications for a faculty position in Physical Chemistry at the Assistant Professor level. A Ph.D. in chemistry or a related field is required, and post-doctoral experience is preferred. The candidate's research program may be in any area of Physical Chemistry, but preference will be given to candidates whose research complements that of current faculty in the department. For additional information and to apply visit our website at <http://facultyjobs.unt.edu>. Review of applications will begin immediately and continue until the position is filled. UNT is an AA/ADA/EOE institution.

***** See attachment *****

Postdoctoral positions at Brookhaven and Stony Brook University through the INCREASE consortium

Our INCREASE consortium is working with Brookhaven and Stony Brook University to fill the **attached** postdoctoral positions. Please include information about them in the next issue of the NSHP Newsletter.

Big Thanks, Sekazi Mtingwa

***** See attachments *****

Two tenure-track faculty positions in nuclear physics at The University of Notre

The University of Notre Dame invites applications for two tenure-track faculty positions in nuclear physics. Applications are particularly encouraged from physicists in the areas of experimental and theoretical nuclear astrophysics who will work to strengthen and broaden the existing experimental program at the Notre Dame Nuclear Science Laboratory (NSL).

The successful candidates are expected to add new research directions and techniques to the laboratory, conduct world leading research and innovative technological or computational developments, and contribute to the strong graduate and undergraduate science program of the NSL.

The NSL is a world-leading laboratory in nuclear astrophysics with a strong program in low energy reaction studies with stable and radioactive beams funded by the National Science Foundation. The nuclear physics group at Notre Dame has presently seven faculty members in experimental nuclear physics and two faculty in theoretical nuclear physics with a strong research and technical staff group providing research opportunities for more than 30 graduate students in nuclear physics (<http://isnap.nd.edu/>). The NSL is a core institution and founding member of the Joint Institute for Nuclear Astrophysics (JINA) (<http://www.jinaweb.org/>), which operates experimental as well as theoretical research programs world-wide.

The Department of Physics has a faculty of 43 tenured and tenure-track faculty, 20 research faculty, and approximately 100 graduate students, and expects to add several additional tenure-track faculty positions in basic and applied nuclear physics over the next several years. Additional information about the department and the College of Science can be found at <http://physics.nd.edu> and <http://science.nd.edu> respectively.

The successful candidates must have a PhD and sufficient postdoctoral or other research experience. The applications should include a cover letter with a CV, a list of scientific publications, a research plan of no more than two pages. The applicants should also solicit letters of at least three references. For full consideration, all application material should be received by November 3. The university actively encourages applications of women and minorities.

University of New Hampshire - Peter T. Paul Chair in Space Sciences

The University of New Hampshire's College of Engineering and Physical Science (CEPS) and the Institute for the Study of Earth, Oceans, and Space (EOS) seek an outstanding individual to fill the Peter T. Paul Chair in the Space Science Center. This tenure-track position will most likely reside in the Department of Physics, although an affiliation with another department within CEPS is also possible. The rank will be commensurate with experience. The Chair includes an annual research stipend that may be used for graduate students, post-graduates, or equipment support. The Space Science Center conducts research in a wide range of fields that include solar, heliospheric, magnetospheric, ionospheric, and planetary physics, as well as high-energy astrophysics. The Space Science Center has a strong history in the development of space flight instrumentation. On-site facilities and an experienced staff of engineers are available to support ongoing experimental efforts. The Center also hosts vibrant theory and simulation groups that complement the experimental programs.

Candidates for this position must have the ability and desire to participate in graduate and undergraduate education and to lead a major, independent research effort in a field that is aligned with any of the current research programs. Applicants must have a Ph.D. in Physics, Astronomy, Engineering or a related field, and seven or more years of professional research experience beyond the Ph.D. The candidate should demonstrate an ability to lead in an increasingly diverse cultural, social and ethnic community. Review of applications will begin on Dec. 1, 2013. Applicants should submit their application as a PDF document containing a cover letter, a curriculum vitae, and brief summaries of teaching interests and future research plans, to Robbin.Williams@unh.edu. The applicant should also arrange for three letters of reference to be sent to the same address. Inquiries about the position should be directed to Prof. Lynn Kistler, Director, Space Science Center, at Lynn.Kistler@unh.edu. The University of New Hampshire is an Equal Opportunity/Equal Access/Affirmative Action institution. The University seeks excellence through diversity among its administrators, faculty, staff, and students. The university prohibits discrimination on the basis of race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, veteran status, or marital status. Application by members of all underrepresented groups is encouraged. For a more comprehensive job description, visit <http://jobs.usnh.edu>, posting# 0901906.

Assistant professor position - University of Wisconsin – Madison

The Department of Physics at the University of Wisconsin - Madison invites applications for an assistant professor (tenure-track) position. Applicants in all areas of physics will be considered, with special emphasis on cosmic frontier experimentalists and on theorists and experimentalists in condensed matter physics, biophysics, and quantum optics.

Undergraduate and graduate classroom and individual instruction as well as supervision of graduate thesis research are required. Ph.D. required before start of appointment.

Candidates should apply with a CV, publications list, research statement, teaching statement, and at least 3 letters of reference at: http://www.physics.wisc.edu/apply/pvl_77776/. To ensure consideration please submit application materials by December 1, 2013.

The University of Wisconsin–Madison is an equal opportunity/affirmative action employer, and especially encourages women and underrepresented minorities to apply. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality. A criminal background check will be required prior to employment. For further information email info@physics.wisc.edu. University of Wisconsin-Madison Position Vacancy Listing PVL# 77776.

Two faculty appointments in AMO and Astroparticle Experiment - University of California, Berkeley

The Physics Department of the University of California, Berkeley intends to make two faculty appointments effective July 1, 2014. We are interested in candidates in the following areas: AMO Science with an emphasis on theory; Astroparticle Experiment with a particular interest in direct dark matter detection. Appointments are intended to be at assistant professor level, though an associate or full professor appointment is possible in the Astroparticle Experiment search. A Ph.D. or equivalent in Physics (or a Physics related discipline) is required at time of application. The department seeks candidates whose research, teaching, or service has prepared them to contribute to our commitment to diversity and inclusion in higher education.

A curriculum vitae, bibliography, statement of research interests, statement of teaching philosophy, and a list of at least 3 references (names and complete addresses including email) are required for consideration. References will be requested to supply letters through the online application system. All letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e., dossier service or career center), to the UC Berkeley statement of confidentiality: <http://apo.chance.berkeley.edu/evalltr.html>. For senior applicants who wish only to be considered at the associate or full professor level, it is sufficient to provide names and addresses of references in the initial application; the search committee will contact these references for letters only after the applicant is selected for further consideration.

Online applications are strongly preferred. The following URL links will provide you with instructions and allow you to self-register, upload PDF's, and request your letters of reference:

Astroparticle Experiment search go to <https://aprecruit.berkeley.edu/apply/JPF00197>

AMO Science search go to <https://aprecruit.berkeley.edu/apply/JPF00196>

If online application is not possible, please contact Sarah Wittmer, switt@berkeley.edu for alternative methods.

Applications by E-mail or FAX will not be accepted. Applications must be received by November 8, 2013.

University of Minnesota Duluth - Senior Faculty Position, Physics Department Head

The Department of Physics at the **University of Minnesota Duluth** invites applications for a tenured professorship and department head in physics. The start date is August 25, 2014. A Ph.D. and tenured faculty rank (or equivalent) in Physics or closely related field from a regionally accredited university, an established record of support for an independent research program in physics, and demonstrated ability to teach to a diverse group of students at the undergraduate and graduate levels, including ability in written communication are required. We seek candidates who will lead the department in pursuing new opportunities and addressing the needs and growth of a diverse faculty. Recruitment and supervision of undergraduate and graduate students in research is expected, as is success in obtaining external funding. Salary is competitive; start-up funds will be available.

Apply online at <http://employment.umn.edu/applicants/Central?quickFind=114833>. Please list five references: candidates who meet the criteria will be contacted to provide letters at a later date. Review of completed applications will begin on **November 14, 2013**.

University of Maryland, Baltimore County - Faculty Position in Atmospheric Physics

The Department of Physics invites applications for a tenure-track assistant professor position in atmospheric physics to begin in August 2014. Preference will be given to candidates with specialization in any of the following areas: lidar instrumentation and remote sensing; experience with ground, airborne or laboratory measurements and modeling supporting field campaigns, satellite validation and mission development; basic atmospheric physics research in radiative transfer, light scattering or remote sensing. We seek candidates who have a demonstrated capacity to establish a vigorous, externally funded research program. A Ph.D. in Physics, Atmospheric Science or in a closely related field and the ability to teach effectively in both the graduate atmospheric physics and undergraduate physics curriculum are required. Postdoctoral experience is required and start-up funds are available. The appointment is expected to broaden and complement existing research programs in active and passive remote sensing and atmospheric modeling. Additional collaborative research opportunities exist with affiliated faculty from the UMBC/NASA GSFC Joint Center for Earth Systems Technology (<http://www.jcet.umbc.edu/>). In exceptional cases, the appointment may be made at a higher rank. The department currently consists of 17 tenure-track and 10 research faculty, over 45 graduate students and 150 majors. The department offers a BS in Physics, and both MS and Ph.D. degrees in Atmospheric Physics and in Applied Physics. Research expenditures currently exceed \$5M per year. (For more information see: <http://physics.umbc.edu>).

Please submit an application letter, a resume, research and teaching plans and the names and addresses of at least three references to Chair of the Search Committee, Department of Physics, UMBC, 1000 Hilltop Circle, Baltimore MD 21250, Email: Physics@umbc.edu. The selection process will begin November 15, 2013 and will continue until the position is filled. The department is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching and service. UMBC is an Affirmative Action/Equal Opportunity Employer.

Virginia Tech - Department of Physics - Faculty Position in Cosmology

The College of Science at Virginia Tech, in support of the university's strategic plan, is expanding its research presence in: Energy and the Environment, Infectious Diseases, Nanoscience, Neuroscience, Computation and Visualization & Pattern Recognition. As part of this initiative, the Department of Physics has a tenure-track opening in cosmology, broadly defined, including all areas of theoretical, observational, experimental, and computational cosmology, to start in the fall of 2014 on its Blacksburg, VA campus. Appointment at the assistant professor level is anticipated but exceptional senior candidates will be considered. The department has existing research areas in galaxy formation and evolution, early universe cosmology, string theory and particle physics represented by the Center for Neutrino Physics. Candidates who will complement and extend at least one of these research areas are particularly encouraged to apply. Applicants must have a Ph.D. in physics, astronomy or a closely related field, postdoctoral experience, and pass a criminal background check.

The successful candidates will be expected to establish a vigorous research program, teach effectively at the undergraduate and graduate levels, continue development of scholarly activities and professional capabilities, and participate in department, college, and university governance. Occasional travel to attend professional conferences is required. The faculty handbook (available at <http://www.provost.vt.edu>) gives a complete description of faculty responsibilities.

Questions regarding the position can be directed to Prof. Patrick Huber, Chair, Cosmology Search, Physics Department, Robeson Hall, Virginia Tech, Blacksburg, VA 24061, Tel: (540) 231-8727, Email: cosmology@phys.vt.edu. Applications must be submitted online at <http://listings.jobs.vt.edu> (posting TR0130071). The application package should include a cover letter, curriculum vitae, a research plan and a statement of teaching philosophy. Applicants should arrange for at least three letters of recommendation to be submitted directly to the Search Chair. Review of applications will begin on January 6, 2014, and continue until the position is filled.

Virginia Tech is an EO/AA university, and offers a wide range of networking and development opportunities to women and minorities in science and engineering. The physics department offers a supportive environment, including a mentoring program, to its junior faculty. Individuals with disabilities desiring accommodations in the application process should notify Mrs. Sue Teel, Physics Department, (540) 231-7566, or call TTY 1-800-828-1120.

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/>.