

# PROTON



PHYSICS REPORT ON THINGS OF NOTE

VOLUME 6 NUMBER 7

## MEET THE NEW FACULTY



**Ivan Furic**, new Assistant Professor in Physics, received his PhD from MIT in 2004. Ivan held the position of Enrico Fermi Fellow at the University of Chicago from 2004-2007 and will

be joining the High Energy Physics group in CMS/CDF experiments. His research focus includes probing beyond the standard model using tera-electron-Volt muons.

He was also recently selected as one of three recipients of the 2007 "Young Physicist" Prize, awarded by the High Energy and Particle Physics Division of the European Physical Society.



**Heather Ray**, new Assistant Professor in Physics, received her PhD at the University of Michigan in Experimental High Energy Particle Physics in 2004 with a dissertation entitled,

"Measurement of the top-antitop quark pair production cross section in proton-antiproton collisions at  $\sqrt{s} = 1.96$  GeV, using B quark identification". Heather was previously employed as a Postdoctoral Research Assistant at the Los Alamos National Laboratory from 2004- 2007 and will be joining the High Energy Physics group specializing in the MiniBooNE neutrino experiment. Her current work and future research will focus on using neutrinos to search for physics beyond the Standard Model.

### Fall 2007 SEMINAR Schedule

**Astrophysics**  
Fridays @ 4:00pm in Room 2165 NPB

**Condensed Matter Physics**  
Mondays @ 4:05pm in Room 2165 NPB

**High Energy Physics**  
Tuesdays @ 2:00pm and Fridays @ 2:00pm in Room 2165 NPB

**Physics Colloquium**  
Thursdays @ 4:05 in Room 1002 NPB

**Quantum Theory**  
Wednesdays @ 4:05pm in Room 2205 NPB

**MAGNET LAB**  
NATIONAL HIGH MAGNETIC FIELD LABORATORY  
FLORIDA STATE UNIVERSITY - LOS ALAMOS NATIONAL LABORATORY - UNIVERSITY OF FLORIDA



### Magnet Lab Funding Level is Announced

There's very good news for the people of the National High Magnetic Field Laboratory (NHMFL), in this time of tight Federal budgets. The National Science Board has recommended that the NHMFL (National High Magnetic Field Laboratory) funding increase over the next five years (2008-2012). The NHMFL was funded at a level of \$128.5M over the period 2002-2006.

"A large part of the increase will be needed to meet the increased power costs", says Neil Sullivan, Professor in the Physics Department. "It will be a while before the final award is announced and the executive committee decides on the detailed funding breakdown for the UF and LANL Facilities. Since the last award, there has been an appreciable increase in activity at UF in AMRIS and an approximate doubling of the High B/T Facility Usage".

Exciting times lie ahead.

### EDITORS

Alan Dorsey, Chair  
Pam Marlin



college of  
**liberal arts & sciences**

**UF** UNIVERSITY of  
**FLORIDA**  
The Foundation for The Gator Nation



### Conference in Honor of Robert Buchler's 65th Birthday

The conference in honor of **Robert Buchler's** 65 birthday: 'Nonlinear stellar hydrodynamics' and the 2nd Cepheid workshop: "The pulsation of Cepheids: Observation & Theory (Cassini project)" was held July 9-13th, in Paris, France at Institut d'Astrophysique de Paris in the 'salle des seminaries'. As Buchler requested, the meeting remained small, informal and friendly. It included students as well as the gathering of colleagues who specialized in different topics. The schedule of the scientific program was devised so as to allow tutorials and several participants gave talks.

*Above photo is of Robert Buchler (center) with his ex-postdocs who also attended the meeting. The photo was taken at the reception at the Paris Observatory (the one that Louis XIV had built - hence the costume that Buchler is wearing)*

### UPCOMING SEMINAR SPEAKERS

FOR TIMES PLEASE SEE PAGE 1

#### CONDENSED MATTER

SEPT 10, LAUREN MCINTYRE UF  
SEPT 17, LORENZ HARTMANN  
U OF INNSBRUCK  
SEPT 24, MAXIM DZERO  
RUTGERS

#### COLLOQUIUM

SEPT 6, ANDREW RINZLER  
UF PHYSICS  
SEPT 13, AMLAN BISWAS  
UF PHYSICS  
SEPT 20, STEPHEN HILL  
UF PHYSICS  
SEPT 27, STEVE EIKENBERRY  
UFASTRONOMY

#### OTP

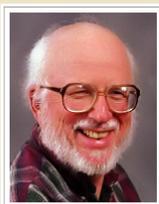
SEPT 5, JUAN TORRES  
BARCELONA, SPAIN  
SEPT 19, SVETLANA KILINA  
SEPT 26, LAN LI  
QTP

SEMINAR SCHEDULES ARE LISTED AT  
<http://www.phys.ufl.edu/seminars/>

### News Bits



**Pierre Ramond** will spend the Fall Semester on Sabbatical at the Institute for Advanced Studies in Princeton, New Jersey



NSF, CONACYT (Mexican research funding agency), and the State University of Zacatecas (Mexico) sponsored a Pan American Advanced Scientific Institute on "Electronic States and Excitations in Nanostructures", June 11-22, 2007, in the city of Zacatecas. **Sam Trickey** was one of the invited lecturers. His presentations were "Prediction of Materials Properties with Local Basis Set DFT Methods" and "Approximate Kinetic Energy Density Functionals - A Sampler". As the only Spanish speaker of the first-week lecturers, he had many one-on-one and small group discussions with participants as well as being interviewed by a local newspaper "La Imagen" in Spanish. There were 105 registrants from 11 countries. The PASI website is <http://qro.cinvestav.mx/~pasi2007/index.html>



## STUDENT NEWS

**Andrew Leathers**, PhD student with **David Micha**, has been awarded an NSF travel stipend administered by the Computational Materials Center of the University of Illinois, to participate at the Paris, France, upcoming workshop on "Energy Flow Dynamics in Biomaterials". Andrew will present a poster on the calculation of density matrices for photoexcited many-atom systems.

### Welcome new physics students



Avtandil  
Achelashvili



Daniel  
Amariutei



Yanbin  
An



Don  
Burnette



Eric  
Danielson



Kinjal  
Dasbiswas



Danial Sabri  
Dashti



Sandipan  
Dutta



Joseph  
Grange



Rashid  
Hamdan



Michael  
Hartman



Junjie  
Liu



Yanxin  
Liu



Matthew  
Mikels



Aaron  
Min



Shawn  
Mitryk



Joel  
Mousseau



Zahra  
Nasrollahi



Sohyun  
Park



Dipta  
Saha



Gaurab  
Sarangi



Gendith  
Sardane



Paul  
Sellers



John  
Timmerwilke



Hsin-Wu  
Tseng



Po-Hsiang  
Wang



Wen-Ya  
Wang



Xiaoxiang  
Xi



Qiaoli  
Yang



Mohammed  
Zakaria

2007-2008  
New Students



Department of Physics



SPS Physics for the Future

U.F. Society of Physics Students

### ARE YOU A NEW PHYSICS MAJOR?



To help with studies and to participate in physics activities, join the **Society of Physics Students (SPS)**. The Chapter has received many national awards which include the Outstanding Chapter Award and the Marsh W. White Award, given to Chapters to support projects designed to promote interest in physics among students and the general public. This group of students is active in the community and often goes on group outings; their favorite is Paintball, and each Spring they sponsor a department wide picnic at Lake Wauburg. Visit their webpage and become a member now! <http://www.phys.ufl.edu/~sps>. The chapter also welcomes their new advisor, Prof **Amlan Biswas**, beginning the Fall 2007 semester.



undergraduate  
physics  
newsletter

**UP News** is a monthly undergraduate physics newsletter sponsored by the University of

Florida's chapter of the Society of Physics Students, for students, by students. The goal is to strengthen the undergraduate physics community at UF by providing a forum for undergraduates to share their views and experiences with each other and acting as a source of information for opportunities and events in physics. Creative articles include student's personal research experience trips at other universities and countries, and fun articles about how many prefer Papa John's pizza over Hungry Howies. Visit their website at <http://www.phys.ufl.edu/~upnews>.



*Fall semester arrives  
in the Physics Building*



## Building Security Reminders

As the Fall semester starts, please take heed to these reminders:

Lock your door when you are not in your office. It's unfortunate that every year we experience thefts of laptop computers, lab equipment, purses, and other personal items. These are crimes of opportunity; remove the opportunities by securing your workspace. If you do suspect a theft from the building, contact the University of Florida Police Department (UFPD) immediately at 392-1111, and make sure to inform me as well. If it is an emergency, call 911.

The UFPD is responsible for locking all buildings at night, usually by 10 pm. If you find that the building is unlocked, please call UFPD directly at 392-1111. You should also call UFPD if you notice any suspicious activity in the building.

## Call for Nominations-Prudential Financial Davis Productivity Awards

Presented annually, the Davis Productivity Awards honor state government employees throughout Florida who have significantly increased productivity in delivering state services and products. Awards are also made to individuals and work units for adapting and implementing previous years' award-winning achievements to create added value.

Nomination categories include:

- \* State Employee Teams, Work Units, and Partnerships
- \* Individual
- \* Sustained Exemplary Performance by a Work Unit, District, Institution, or Comparable Organizational Unit (over a period of five or more years)
- \* Sustained Exemplary Performance by an Individual Employee Exemplary Achievement of a State Agency or a Division, Large Bureau, District, Institution, or Comparable Organizational Unit
- \* Recognition of Long-Time Nominators (over a period of 10 or more years)
- \* Recognition of Adaptation and Implementation of a Previous Davis Productivity Award or Other State Government Innovation

The program presents cash awards ranging from \$250 to \$2,500 as well as commemorative plaques and certificates of commendation. A committee of Florida TaxWatch staff and a panel of judges make award decisions, and winners are announced in March 2008. This year, the committee has created a new online application process to make form submission easier. The deadline for submissions to the UF Agency Coordinator is Friday, September 28, 2007. For a link to the online nomination form or to contact the Agency Coordinator, Amanda Moore, please visit <http://www.hr.ufl.edu/davis/default.htm>.

**The PROTON** is a monthly newsletter produced by the Physics Department to publicize the department's activities and news from the faculty and staff. Anyone is invited to submit material to be printed in the publication. Submissions for the PROTON should be sent to Pam Marlin, [physicsnews@phys.ufl.edu](mailto:physicsnews@phys.ufl.edu) by the 4th Monday of each month.