

THE BIG BANG

Newsletter for the Department of Physics, Hampton University

Issue: OCTOBER-NOVEMBER, 2011

Submit information to jan.mangana@hamptonu.edu and type THE BIG BANG in the subject line

The “second coming” of *The Big Bang* is here! Everyone is encouraged to provide input, and to look forward to it coming out. Please, send in your entries in at any time to jan.mangana@hamptonu.edu. Type Big Bang in the subject line. It will be published monthly -- not weekly.

ANNOUNCEMENTS

NEW PERSONNEL – Welcome to the Department!

Ms. Tionna Belsches, Department Secretary as of October 3, 2011. Former receptionist for the Business Office
Mr. Herbert Brown, Laboratory Coordinator/Lecturer. He completed his Masters Degree under Dr. Uwe Hommerich this semester.

Dr. Calvin Lowe, Dean of the School of Science as of October 10, 2011. Dr. Lowe is a physicist.

APPOINTMENTS -- Congratulations!

Dr. Paul Gueye, 2011 President Elect, NSBP.

Dr. Rolf Ent, appointed Jefferson Lab Assoc. Dir. for Experimental Nuclear Physics, succeeding Dr. Lawrence Cardman, who served in this capacity since 1997.

NEWLY-FUNDED PROPOSALS

➤ *Dr. Jaetae Seo* (PI), *Dr. Uwe Hommerich*, *Dr. Bagher Tabibi*, and *Dr. Pat McCormick* (Co-PIs) were awarded a research grant, “Advanced Center for Laser Science and Spectroscopy,” from NSF-CREST. (August 2011)

➤ *Dr. EiEi Brown* and *Dr. Uwe Hommerich* were awarded a two year contract (STTR-Phase II-subcontract) from Brimrose Corporation for research in Infrared Laser-Induced Breakdown Spectroscopy (IR-LIBS).

OUTREACH

On December 9, 120 eighth graders from Spratley Gifted Center will visit HU for hands-on laboratory experiences in Phys, Comp. Sci., CAS, Math, and Chem departments.

PUBLICATIONS

Dr. Michael Kohl is co-author of a review article about the results achieved with the BLAST experiment at MIT. The review article is published in the 2011 edition of Annual Review of Nuclear and Particle Science, November 2011.

CONFERENCES and TALKS

9/26-30/2011 - *Dr. Michael Kohl* gave an invited talk, entitled, “*The BLAST and OLYMPUS programs*” at the Partons in Nuclei and Nucleons (PINAN2011) Workshop held in Marrakesh, Morocco.

Dr. Eric Christy attended the APS Division of Nuclear Physics Physics Fall Meeting to give an invited talk on “*Longitudinal Structure of Protons and Neutrons*”

Seminar Series, Thursdays at 3:30 in Olin 128

10/20 *Dr. Paul Gueye* – “LELIA: A Low Energy Linear Accelerator as a new multidisciplinary research tool at Hampton University”

11/03 *Dr. Kyo D. Song* (NSU) “Optical Engineering and next generation of civil transport system”

11/10 *Dr. Helmut Baumgart* (ODU)

11/17 *Dr. Doyle Temple* (NSU)

APS Conference Experience for Undergraduates 2011

Quinn Hailes, *Thoth Gunter*, *Miles Campbell* and *Joshua McMahan* were awarded lodging expenses and registration to attend the 2011 Fall Meeting of the APS Division of Nuclear Physics to present posters. They were selected “based on the high quality of your research abstract and your personal contribution to the research group effort.” They will be traveling to Lansing, MI Oct. 26 – 29 for the conference. Their abstract titles are:

Miles Campbell and Josh McMahan: “Gas Electron Multiplier Tracking Telescopes for OLYMPUS”

Thoth Gunter: “DarkLight Detector Energy Deposition and Temperature Study”

Quinn Hailes: “Measuring the Half-Life of ^{60}Fe Data Analysis”

78th Annual Meeting of the Southeastern Section of the American Physical Society (SESAPS), Oct 19-22, 2011, Roanoke, VA

Presenter: *Dr. EiEi Brown* – “Mid-Infrared Molecular Emission Studies from Energetic Materials using Laser-Induced Breakdown Spectroscopy”

Presenter: *Dr. Althea G. Bluiett* (research collaborator from ECSU) – “Up-conversion Studies of Er^{3+} doped Low-Phonon Energy Hosts KPb_2Cl_5 and KPb_2Br_5 via $0.97\ \mu\text{m}$ and $1.5\ \mu\text{m}$ Laser Excitation”

Society of Physics Students (SPS) / SIGMA PI SIGMA

Anderson Hayes was elected SPS Associate Zone 4 Councilor. *Thoth Gunter* received the JLab/JSA assistantship. *Simone Hyater-Adams* and *Joshua McMahan* are “Miss SPS” and “Mr.SPS” in the Homecoming Court. *Brent Gills*, SGA President, is featured in the October issue of the HU *Student Connection* -- <http://news.hamptonu.edu/connection/> click on **student spotlight**.

REMINDERS

{Things like grades, reports, and other due dates; faculty meetings}

SUMMER INTERNSHIPS 2011

Undergraduates Institute in Physics (UnIPhy) 2011 REU Eleven students participated in the UnIPhy program this year. Four performed research at MIT for the ten-week summer program there on the ion collider (Jlab collaboration); and seven performed research at for the eight-week summer program at HU – one with *Dr. Jaetae Seo*, two with *Dr. Paul Gueye*, and four at Jefferson Lab with *Dr. Rolf Ent*. All participants were required to write a research report at the end of the program. *Dr. Donald Whitney* was the PI and Director of the UnIPhy program.



UnIPhy 2011- HU Campus Participants

Front row: Nicholas Pomata, Jasmine Austin, Patricia Ingraham, and James Walker

Back row: Megan McGowan, Michael Ross, and Zak Burkley

UNDERGRADUATE STUDENTS:

Miles Campbell traveled to Germany to perform research with *Dr. Michael Kohl* for the Olympus collaboration at DESY for three months.

Minnae Chabwera was accepted into the NASA Langley Aerospace Research Summer Scholars (LARRS) Program and conducted research on Geant4 simulated electron transport through slabs at NASA Langley under the mentorship of *Dr. Tony Slaba* and *Dr. Paul Gueye*.



Roger Crouch and Minnae Chabwera



Minnae Chabwera

Brent Gills received a *College Student Pre-commissioning Initiative (CSPI)* scholarship from the Coast Guard. Went to Boot Camp in Cape May, NJ

Thoth Gunter UnIPhy research on ion collider at MIT

Quinn Hailes received a paid internship to perform research with *Dr. Philippe Collon* at Notre Dame

Anderson Hayes worked in the Richmond Public School System tutoring STEM subjects in middle and high school.

Simone Hyater-Adams received a paid internship under CREST, and performed research with *Dr. Robert Loughman* in the Department of Atmospheric and Planetary Science

Guy Jackson received a paid internship from Brookhaven National Laboratory and performed research in Long Island, New York with *Dr. David Schlyer* conducting tests on the absorption of corn plants' roots using a radio tracer known as fluorine 18 and H3O.

Joshua McMahon traveled to Germany to perform research with *Dr. Michael Kohl* for the Olympus collaboration at DESY for three months.

Quinton Rice received a paid internship to perform research at Carnegie Mellon with *Dr. Gregg B Franklin*.

Ian Steele received a paid internship from *Dr. Eric Christy* to perform NSF-funded research on the construction of a new drift chamber at JLab.

Sharae Williams received a paid internship from the Center for Computation & Technology to participate in the *Interdisciplinary Research Experience in Computational Sciences* program at Louisiana State University in Baton Rouge.

GRADUATE STUDENTS:

Ivy Crystal Jones received the VSGC graduate fellowship, and performed research at NASA Goddard, in Greenbelt, MD.

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Give-A-Way List	Needs and Wants List
Cat carrier box	Tiller

BIRTHDAYS
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