

INVITED SESSIONS

SESAPS 2010

This list of invited speakers and the titles of their presentations is current as of 11 August 2010. The list is subject to change until the final program is compiled, and will be updated as new information becomes available. Stay tuned!

50 years of solving problems in science, technology and medicine with lasers

Rick Trebino, Georgia Institute of Technology

Simple Devices for Measuring Complex Laser Pulses

Melissa Skala, Vanderbilt University

Multiphoton and Photothermal Imaging of Molecular Events in Cancer

Martin Fischer, Duke University

Nonlinear Microscopy with Shaped Laser Pulses - Shedding New Light on Tissue

John Thomas, Duke University

Bowls Made of Laser Light to Corral Ultracold Atoms

Pygmies, superheavies and magic: the exotica of nuclear structure

Alexander Volya, Florida State University

Nuclear many-body problem, from reactions to structure

Joseph Hamilton, Vanderbilt University

Kate Jones, University of Tennessee – Knoxville

Single particle spectroscopy of ^{133}Sn via the (d,p) reaction in inverse kinematics

Anton Tonchev, Duke University

Study of the Nuclear Electric and Magnetic Dipole Response using Monoenergetic and Polarized Photons

Fundamental physics at the Oak Ridge Spallation Neutron Source

Matthias Schindler, George Washington Univ. (until Jan. 2011, then Univ. of South Carolina)

Hadronic parity-violation in pionless effective field theory

Kate Scholberg, Duke University

Physics with Spallation Source neutrinos

Stefan Baessler, University of Virginia

Precision measurements in free neutron beta decay

Christopher Crawford, University of Kentucky

The neutron EDM experiment at the SNS

Into the unknown: Toward physics beyond the Standard Model

Rick Field, University of Florida

What We Have Learned from the Early LHC Measurements

Todd Adams, Florida State University

First Physics Results from CMS

Ayana Arce, Duke University

ATLAS: results and prospects

Marcus Wobisch, Louisiana Tech University

Gravitational waves

Guido Mueller, University of Florida

LISA Overview

Deirdre Shoemaker, Georgia Institute of Technology

Gravitational Waveforms from Numerical Relativity

Lisa Barsotti, Massachusetts Institute of Technology

LIGO and the bright future of gravitational wave astronomy

Andrew Lundgren, Syracuse University

Searching for gravitational waves in LIGO data

Interstellar gas and star formation

Geoffrey Clayton, Louisiana State University – Baton Rouge

Herschel Observations of Dust Around a Newly Discovered UX Ori star in the LMC

Loris Magnani, University of Georgia

Translucent, high-latitude molecular clouds in the Milky Way

Nick Abel, University of Cincinnati – Clermont

Fabian Heitsch, University of North Carolina at Chapel Hill

The Formation of Molecular Clouds: Insights from Numerical Models

Optoelectronics and advanced materials

Diola Bagayoko, Southern University at Baton Rouge

Predictive Calculations for Optoelectronic and Advanced Materials Research

Junpeng Guo, University of Alabama at Huntsville

Jae Tae Seo, Hampton University

Optical Spectroscopy of Plasmon-enhanced Emissions and Scatterings for Advanced Photonic Devices

Guang-Lin Zhao Southern University at Baton Rouge

Studies of Microwave Absorption Properties of Carbon Nanotubes/Epoxy Composites

Carbon nanotubes - from synthesis and characterization to functionalization and devices

Jeremy Jackson, Oak Ridge National Laboratory

Yinka Ogunro, Clark Atlanta University

Saiful Khondaker, University of Central Florida

Parallel fabrication of CMOS compatible single walled carbon nanotube field effect transistor and single electron transistor devices

Silvina Gatica, Howard University

Solid phase of Krypton on a carbon nanotube

Protein dynamics in living cells

Keith Weninger, North Carolina State University

Observing the conformation of individual SNARE proteins inside live cells

Keith Berland, Emory University

Intracellular mobility of nuclear import receptors and NLS cargos

Steve Hagen, University of Florida

Noise and heterogeneity in bacterial communication

Harold Kim, Georgia Tech

Gene expression dynamics in yeast

The role of physics in atmospheric, ocean and earth sciences

Franco Einaudi, NASA

The role of physics in atmospheric, ocean and Earth science

Annalisa Bracco, Georgia Institute of Technology

Mesoscale eddies and vertical mixing in the ocean

Cynthia Ebinger, University of Rochester

Tracking the movement of magma in the East African rift

Tim Masterlark, University of Alabama –Tuscaloosa

Exploring the interior of an active volcano with deformation models

Microfluidics: Computational and experimental challenges

Niel Crews, Louisiana Tech University

Jong Wook Hong, Auburn University

Krishnaswamy Nandakumar, Louisiana State University – Baton Rouge

Eiichihiro Yamaguchi, Tulane University

What can we do about the dearth of qualified high school physics teachers (and high school physics students)?

Monica Plisch, American Physical Society

APS/AAPT/AIP Task Force on Teacher Education in Physics Report

Dana Brown, Louisiana State University – Baton Rouge

GEAUXTeach

Paul Cottle, Florida State University

'But you're just a physics booster!': Why political advocacy for high school physics is crucial

Laird Kramer, Florida International University

The PhysTEC teacher education program at FIU

Applications of physics education research

Paula Englehardt, Tennessee Tech University

Design and usage of assessment instruments

Kathleen Harper, Ohio State University

Problem solving

Scott Bonham, Western Kentucky University

Research on Technology and Physics Education

Cynthia Sisson, Louisiana State University - Shreveport

Recitations for the Rest of Us: Technology Solutions for Schools without Graduate Assistants

Preparing under-represented students for graduate school

Ted Hodapp, American Physical Society

The APS Minority Bridge Program

Diola Bagayoko, Southern University at Baton Rouge

Preparing minority student for graduate school: The model of the Timbuktu Academy

Anderson Sunda-Meya, Xavier University of Louisiana

David Ernst, Vanderbilt University

The Fisk-Vanderbilt Masters to PhD Bridge Program: Increasing Diversity in Physics