





Friday May 1, 2009

1:00-4:00pm Registration

Physics Department Office

Come by the Department Office and say hello. Be sure to pick up your packet, name tag, and, of course, some commemorative bling! Bring a few bucks if you want to buy the t-shirt. If you can't get here by 4:00pm, no worries. We'll get your stuff to you later.

2:00-4:00pm Floyd English Scholarship Reception

Bell Memorial Union 210

Floyd English was the first graduate of the Department of Physics. Every year his foundation bestows \$50,000 of scholarships on the best and brightest science majors at CSU Chico. We have been invited to join the festivities. There will be light refreshments.

4:00-7:00pm Dinner in small groups

Since many of you will just be getting here Friday evening, we decided not to arrange dinner. Come by the Department Office and join a group heading for a downtown restaurant.

7:00pm-10:00pm Wine & Cheese - Show & Tell

Physical Science Courtyard

We want each of you to stand up and share something. Us education types might do a physics demo, while industry folks might show off a short video of their latest project, others might present an unusual physics toy they found, and some might just have a photo of their family. It will be a blast, but beware of the five minute gong! We will be welcomed by the Dean of the College of Natural Sciences, Dr. James Houpis. Adult beverages and an amazing array of hor d'oeuvres will be provided.



Saturday May 2, 2009

8:00-9:00am Bagels, Sweet Rolls, Fruit, & Coffee Physical Science Room 106

A lovely spread of breakfast nibbles and some of the best light conversation you've had at

this time on a Saturday morning in years!

9:00-9:15am Welcome Ayres 120

Chris Gaffney, Physics Department Chair will kick off the day.

9:15-10:05am Invited Presentation Ayres 120

"The Importance of Gamma-Ray Detector Energy Resolution for Homeland Security" Mr. Thomas Gosnell, Radiation Physicist, Lawrence Livermore National Laboratory The Department of Homeland Security's Domestic Nuclear Detection Office has established numerous radiation detectors at U.S. ports of entry to identify the presence of radioactive threat materials entering the United States. Identification is done primarily by recognition of the unique gamma-ray signatures of radionuclides. We have completed the first systematic study of the gamma-ray detector energy resolution needed to unambiguously discriminate between threat sources and the many non-threat sources encountered in daily in commerce.

10:15-11:45am Contributed talks

Physical Science lab rooms

| Time | PS 104 | PS 105 |
|---------------|---|---|
| 10:15-10:40am | Life of a 1st Year Grad Student Ms. Tiara Diamond Physics Graduate Student Florida State University | More Scientists and Engineers Please! Some ways to trick high school students into liking physics and pursuing scientific courses of study in college. Mr. David Atkinson Physics Teacher Lindhurst High School |
| 10:45-11:10am | Angels and Demons and Physics or How I Learned to Stop Worrying and Love the Media Mr. Brendan Diamond Physics Graduate Student Florida State University | Electronic Part Reliability in Earth, Mars, and Jupiter Missions Mr. Joseph Piacentine Electrical Engineer Jet Propulsion Laboratory |
| 11:15-11:40am | Fusion Cross Sections to Internal Transport Barriers: An Overview of Tokamak Physics Mr. Eric Edlund Physics Graduate Student Massachusetts Institute of Technology | Trains, More Than Bells & WhistlesYou Gotta Have a One Track Mind! Mr. Tuka Gafari Union Pacific Railroad |



Noon-1:00pm Picnic lunch Alumni Glen

A terrific luncheon await us under the trees and next to the creek at the beautiful Alumni

Glen.

1:15-1:30pm CSU Chico President Dr. Paul Zingg Ayers 120

President Zingg has a few words to share with us on our special day.

1:30-2:20pm Invited talk Ayres 120

"ElectroMagnetic Tools for Exploration"

Dr. Thomas Nielsen, Chief Technology Officer, Quasar Geophysical Technologies The talk will give a brief overview of a number of past, present, and future electromagnetic sensing systems developed by the Quasar family of companies. Most of these systems will eventually end up on the seafloor, where they are used as exploration tools for hydrocarbons.

2:30-4:30pm Contributed talks

Physical Science lab rooms

| Time | PS 104 | PS 105 |
|-------------|---|--|
| 2:30-2:55pm | Electromagnetically Induced Transparency in GaAs Quantum Wells Mr. Tim Sweeney Physics Graduate Student University of Oregon | Chemical Plant Process Improvement Mr. David Snyder Plant Superintendent Georgia-Pacific Chemicals LLC |
| 3:00-3:25pm | Atmospheric Boundary Layer Flow Visualization with the Raman- shifted Eye-safe Aerosol Lidar (REAL) Dr. Shane Mayor Research Professor California State University, Chico | The Anatomy of a Pitch: Using Pitch/FX Data from Major League Baseball Dr. David Kagan Professor of Physics California State University, Chico |
| 3:30-3:55pm | Trends in Optics and Lasers at Chico State Dr. Anna Petrova-Mayor Professor of Physics California State University, Chico | Making a Case for Case Studies Ms. Lynda Klein Professor of Physics California State University, Chico |
| 4:00-4:25pm | Einsteinian Quantum Theory Dr. Tom Love Professor of Mathematics CSU Dominguez Hill | Critical Thinking and You! Ramblings of a New Skeptic Mr. Andrew Fisher L-3 Communications |



6:00-10:00pm

Banquet & Graduates Gala

CARD Center

We will send this year's class of graduates off right with a program that highlights our alumni and friends. Fresh Approach Catering has a fabulous feast planned from hor d'oeuvres to dessert [menu]. The CARD Center is at 545 Vallombrosa Avenue.

| Time | Event | |
|-------------|--|--|
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| 6:00-6:30pm | Hor d'oeuvres and hosted bar | |
| 6:30-6:45pm | Group photograph | |
| 6:45-7:30pm | Let the feasting begin! | |
| 7:30-9:00pm | Banquet Speaker: Dr. James Millerd Chief Technology Officer 4DTechnology | |
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| | "Grease Monkey to Quantum Mechanic: How Chico State and Physics | |
| | Changed My Life." | |
| | Scholarship Awards | |
| | Sigma-Pi-Sigma Installation | |
| | Recognition of Graduates | |
| | | |

THANK YOU

for making the

The Department of Physics 50th Anniversary Celebration

a wonderful success!