

# The Far West Section of the American Physical Society

2014 Newsletter

## We have a new logo!

As many of you may know our section has expanded. After the APS council as well as you, the section members, approved the inclusion of Hawaii in the section and the name change of the section from “California-Nevada” to “Far West”, the executive committee tackled the last step to make the expansion official by changing the logo of the section. This logo will be used on all official communications and announcements-in the future.

We greatly appreciate all the suggestions we received from you when we solicited ideas for the new logo. We then asked Aurore Simonnet (Sonoma State University/NASA) to suggest a few logos based on all the input we received. At the end the executive committee decided to use the logo shown below depicting the states of Hawaii, California and Nevada encircled by the new name of the section. We hope you will like it as much as we do.





## Letter from the Chair

Dear Fellow Far-Westerners,

Welcome to your geographical section of the American Physical Society; initially California, then CA-NV and CA-NV-HI, and now Far West! If you are not yet a Section member but belong to APS, please send an email to [membership@aps.org](mailto:membership@aps.org) and ask to be added. It won't cost you anything extra, but will provide a bit of extra funding for the Section to carry out its tasks.

What does the Section do? The same things that the American Physical Society does: identify new members, elect officers, hold meetings, and give prizes (for outstanding student and postdoc presentations at those meetings).

Our next meeting will be Friday & Saturday 24-25 October 2014 at University of Nevada, Reno (nearest airport Reno, Nevada). The 2015 meeting will take place in the City of Long Beach, close to LA. Why should you join and come? It is a perfect chance to meet physicists from disciplines and institutions very different from your own. And, most important, a chance for your students and other young colleagues to give real, APS-style 10-minute talks about their own research. This applies to undergraduate and graduate physics students, and for some of them, it may well be their first talk about their own work. Talks from less junior physicists are also welcome.

In addition, the meeting will have several plenary talks by outstanding colleagues, a panel discussion on some topic of general interest (careers in start-ups, aerospace, and medical physics have been recent ones); and a "meet the experts" luncheon for students and established physicists. Housing and travel for students who give talks are fully or partially subsidized. This - and the prizes for outstanding presentations - is our major annual expense. Details of the meeting can be found at <http://www.unr.edu/physics/aps>.

That is what your Section can do for you. Now, what can you do for your Section? It needs your help with several things - an election is coming up; the 2015 meeting program and other activities need to be formulated; and eventually abstracts need to be sorted. Each of these tasks require a small committee and ideas.



So, if you are willing to help (or want to "volunteer" a colleague) please get in touch with me or any of the member of the executive committee.

With greetings from the Far West,

Sergey Savrasov  
University of California Davis

## 2014 Election News

The Nominating Committee for the 2014 Far West Section election consisted of Peter Beiersdorfer (Vice Chair), Doug Singleton (Chair-Elect), Virginia Trimble (Past Chair), Sergey Savrasov (Chair), Clare Yu (APS appointed member of the committee). The elections took place in the summer of 2014. In addition to electing new members to the committee we also asked for your opinion regarding the inclusion of poster sessions at the meeting. The results of the election are listed in the following:

<i>Vice Chair:</i>	Andreas Bill (CalState Long Beach)
<i>Treasurer/Secretary:</i>	Alla Safronova (University of Nevada, Reno)
<i>Members at Large:</i>	Adrian Hightower (Harvey Mudd) John Price (CalState Dominguez Hills)
<i>Student Representative:</i>	Thomas Baker (UC Irvine)

Two third of the votes cast were in favor of adding a poster session to the format of the Section's annual meeting, if the local facilities permit such a session.

The next election will be coming up soon, and we will again be looking for candidates. Please get in touch with us to recommend your students, colleagues, or other suitable members of the Far West Section of the APS, including yourself

Peter Beiersdorfer  
Lawrence Livermore National Laboratory



## 2014 Annual Meeting at the University of Reno, Nevada

**2014 Annual Meeting**  
of the American Physical Society, Far West Section

October 24 - 25, 2014  
Department of Physics  
University of Nevada, Reno

**Plenary Talks**  
**Werner Dappen, USC**  
"Open Issues in the Physics of the Solar Interior"

**Tammy Ma, LLNL**  
"Inertial Confinement Fusion Experiments at the National Ignition Facility"

**Ron Phaneuf, UNR Emeritus**  
"Photoionizing a Caged Atom: a Single-Molecule Electron Interferometer"

**Maria Spiropulu, CalTech**  
TBA (Higgs Boson, Particle Physics)

**After Dinner Speaker**  
**John Learned, UHM**  
"Those pesky Neutrinos, are they good for anything at all?"

Welcome Reception  
Thursday, Oct 23<sup>rd</sup>, 6:30pm

Registration Online by September 21 at [www.unr.edu/physics/aps/](http://www.unr.edu/physics/aps/)  
Local Contact: Peter Winkler, Emeritus [winkler@unr.edu](mailto:winkler@unr.edu)  
Program Contact: Douglas Singleton [dougs@csufresno.edu](mailto:dougs@csufresno.edu)

APS physics

The next meeting is coming up soon and will be held at the University of Nevada in Reno. The two-day meeting will feature four exciting plenary talks covering scientific topics from the discovery and further investigation of the Higgs boson to fusion research, solar science and atomic physics. As always we are also very excited to be able to present a fascinating after dinner speaker. The program also features a panel discussion on career opportunities in atmospheric science. And finally – the most important part of the meeting – two days filled with talks by you and all your colleagues, sharing your latest results and research with us. Don't miss out on this exciting meeting. If you have not yet registered, please use the following link to do so <http://www.unr.edu/physics/aps>. Deadline for sub-

mission of abstracts is October 10, 2014. This is the first meeting of the section outside of California and we all hope that you will be able to join is at this beautiful location. After all you may decide to stay a bit longer to enjoy Reno and its surroundings.

Your APS Far West Section Executive Committee



## **The American Physical Society California-Nevada Section met at Sonoma State University in 2013**

Beginning with a spooky and laser-lit Halloween Welcome Party sponsored by SSU's SPS chapter, over 175 paid attendees of the California-Nevada section of the APS met at SSU for the first time. It was also the last meeting of the California-Nevada section, as during the business meeting, members voted to change the name of the section to "Far West." SSU E/PO Scientific Illustrator Aurore Simonnet designed the logo to go with the new section name as well as the "Lobo on Halloween" conference poster.

Focusing on undergraduate and graduate student research, the meeting featured 95 contributed talks filling 11 parallel sessions. Invited speakers included SSU Professor Emeritus Bryant Hichwa who reprised his popular lecture on the Physics of Baroque Bassoons, as well as UC Davis Prof. Daniel Cox, who described his research on using Proteins as Nanolegos, UC Berkley researcher Marjorie Shapiro who filled us in on what we know about the Higgs Boson and Stanford professor Kam Moler discussing her work characterizing Emergent Phenomena in Quantum Materials.

On Friday night 11/1, attendees were treated to a wonderful banquet in the SSU Commons followed by an outstanding presentation about the hazards of near Earth objects by former SSU E/PO employee and "Bad Astronomer" Phil Plait. Events on Saturday 11/2 included a free lunch and networking session with more senior members of the section, and a panel discussion on careers in Education and Public Outreach that included the SSU E/PO group's Kevin John, APS Public Outreach head Rebecca Thompson, Community College Instructor and SPS Zone Councillor Prof. Brooke Haag and SLAC National Accelerator Laboratory Scientific Editor Kelen Tuttle. To see the meeting details: <http://epo.sonoma.edu/aps/>

Lynn Cominsky  
Sonoma State University

### **Prizes & Awards at the 2013 Section Meeting**

The following prizes are awarded each year to scientists and students from California, Nevada & Hawaii for the outstanding work performed by their recipients and the groups and institutions they work with.



### 2013 Graduate Student Awards:

#### **Kennedy Reed (\$250) award for Best Theoretical Research by a graduate student**

- Thomas Baker (UC Irvine) [bakerte@uci.edu](mailto:bakerte@uci.edu)  
Title: "Long Range Effects in Tunable Superconducting-Magnetic Proximity Systems"

#### **Margaret Burbidge award (\$250) for Best Experimental Research by a graduate student**

- Dustin Gilbert (UC Davis) [dagilbert@ucdavis.edu](mailto:dagilbert@ucdavis.edu)  
Title: "Tuning magnetic anisotropy in (001) oriented L10 (Fe<sub>1-x</sub>Cu<sub>x</sub>)<sub>55</sub>Pt<sub>45</sub> films"

### 2013 Undergraduate Awards:

#### **Helen Quinn award for Undergraduate Research (\$250)**

- Benjamin Gruey (Santa Rosa Junior College) [sravoff@gmail.com](mailto:sravoff@gmail.com)  
Title: "Chasing the Electron: A sophomore's guide to the math you'll need to reach the Schrodinger Equation"

#### **Steven Chu award for Undergraduate Research (\$250 each) — First place tie between:**

- Kevin Zack (SSU) [kzack@universe.sonoma.edu](mailto:kzack@universe.sonoma.edu)  
Title: "The Development of a 3P PocketQube"
- Carlos Sanchez (CSU LA) [csanch44@calstatela.edu](mailto:csanch44@calstatela.edu)  
Title: "Effects of <sup>18</sup>O/<sup>16</sup>O Isotopic substitution on the specific heat of Single Crystalline Nd<sub>0.5</sub>Sr<sub>0.5</sub>MnO<sub>3</sub>"

#### **Steven Chu award for Undergraduate Research (\$125 each) — second place three-way tie among:**

- Stephan Jackowski (SSU) [jackowsk@seawolf.sonoma.edu](mailto:jackowsk@seawolf.sonoma.edu)  
Title: "Al-doping of ZnO (AZO) via Electrochemical Deposition: An Exploration of Optoelectronic Applications"
- Zachary Glassman (Pomona College) [zach.glassman@gmail.com](mailto:zach.glassman@gmail.com)  
Title: "YbF, BOB and the eEDM: probing zero with diatomic molecules"
- Claire Dickey (Pomona College) [cmd02010@pomona.edu](mailto:cmd02010@pomona.edu)  
Title: "The Low Mass Luminosity Function in Globular Clusters"





## The Executive Committee visited DC

In February 2014, members of the executive committee were invited by the APS to travel to Washington DC to attend the APS leadership convocation. The convocation is an opportunity to learn more about the inner workings of the American Physical Society and the services they are able to offer to their members and in particular to their units, the divisions, topical groups, forums and sections. Recently, the society has grown to more than 50,000 members and for this reason it is crucial that the different groups within APS are equipped with the tools provided by the APS to communicate efficiently with their members and with each other.



*Members of the California delegation to CVD, from left to right: Randy Knight (Cal Poly SLO), Maria Spiropulu (Caltech), Hendrik Ohldag (SLAC), Doug Singleton (CSU Fresno), Steve Lambert (APS)*

This year, the executive committee was represented at the convocation by Peter Beiersdorfer (LLNL), Hendrik Ohldag (SLAC) and Douglas Singleton (CSU Fresno). Over the course of the convocation we heard presentations from different departments at APS, like government relations, international and industrial affairs, membership development, publications and web services, diversity and outreach or finances. In addition a large part of the meeting was dedicated to the issue of **corporate reform** of the APS. Recently you received an email from APS headquarters in which

the president of the APS Malcolm Beasley commented on the proposed changes to the organizational structure of the APS and why these are necessary now.

A copy of the letter can be found at <http://www.aps.org/publications/apsnews/201408/letter.cfm>. This is an important issue for the society and we highly encourage you to inform yourself about these changes and cast your vote in October. Please do not hesitate to contact any of us should you have any further questions on this particular matter or for other questions regarding the services provided by APS. Even if we do not know the answer, we sure know whom to ask.



The convocation was preceded by the Congressional Visits Day (CVD) for which we were joined by Maria Spiropulu (Caltech), Randall Knight (CSU San Luis Obispo) and Steven Lambert (APS). The office for government affairs at the American Physical Society did an excellent job preparing us for our visits. The evening before the CVD took place we were presented with an overview of the current political situation on the hill and the consequences for science funding. The main message that we wanted to convey was to ask congress to commit to a sustained funding level for science that enables us to develop long-term strategies. In addition to several congressional offices of members of the house, we also visited the offices of Senators of all three states represented by the section, namely Senator Reid (D-NV), Senator Boxer and Senator Feinstein (D-CA) and Senator Schatz (D-HI). Based on this central message, we provided members of congress with examples of how the current insecure and constantly changing – declining – funding situation negatively affects not only our research but also the communities surrounding the institutions where we work. In this regard, we would like to point out that it is extremely important that you contact your local congressional offices as well. Call them, make an appointment and talk to them about your situation. Maybe you are working on some exciting project that you can talk about and that you can present in a manner that is accessible to the general public. If you are a student or working with a student, take a few fellow students along for the ride and explain to them how the funding situation affects their education in Science, Technology, Engineering and Mathematics. Your voice counts and they will listen to you.

Peter Beiersdorfer  
LLNL

Hendrik Ohldag  
SLAC

Douglas Singleton  
CSU Fresno

## Contacts

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Douglas Singleton	<a href="mailto:dougs@csufresno.edu">dougs@csufresno.edu</a>	Program 2014 meeting