

# NCCHPS

Northern California Chapter-Health Physics Society  
January 2016



## *Joint NCCHPS and ANS January 2016 Dinner Meeting*

*Thursday, January 21, 2016*

*5:30 pm Social, 7 pm Dinner, 8 pm Presentation*

*Berkeley Yacht Club, Berkeley, CA*

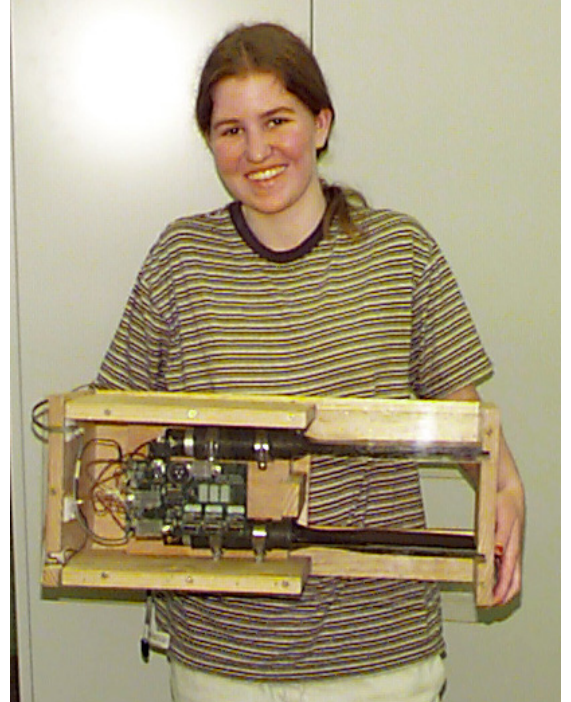
### **Detecting Cosmic Rays with the Berkeley Lab Muon Detector**

**Howard Matis, Affiliate Staff Scientist  
Lawrence Berkeley National Laboratory**

Cosmic radiation is everywhere; its study is of deep scientific interest. In 2015, the Nobel Prize in Physics was awarded to two researchers who buried their detectors deep underground to shield them from charged cosmic rays so they could identify cosmic neutrinos. Current experiments that search for exotic phenomena, such as Dark Matter and Proton Decay, also need to be constructed deep under the earth's surface to shield from these charged rays.

At Berkeley Lab, we have created a portable cosmic ray detector (<http://cosmic.lbl.gov>) to educate the public on radiation. We use it to demonstrate that we are bombarded by radiation that we cannot shield. It is an ideal instrument to use because the observer receives no additional radiation exposure. Students, teachers, and researchers all over the world have used this design. It has been built for science projects, flown on rockets, brought deep underground, and carried on balloons. In fact, the Berkeley Detector has traveled to all of the continents of the world including Antarctica.

In my talk, I will describe what has been done with this detector and then demonstrate its capabilities.





## NCCHPS is now on Twitter

With agreement of the Board, NCCHPS is increasing our social media presence. The twitter account is ready for members to follow:

<https://twitter.com/ncchps>.



### ***61st Annual Health Physics Society Annual Meeting***

***17-21 July 2016, Spokane, Washington***

Spokane looks forward to hosting the Health Physics Society! The Spokane Convention Center, headquarters for the Health Physics Society Conference in 2016, sits in the heart of our city, making it convenient to quickly visit unique shops, restaurants and attractions.

The headquarters hotel in Spokane is the The Davenport Grand, Autograph Collection, 333 West Spokane Falls Boulevard, Spokane, WA 99201.

As part of the 2016 annual Health Physics Society (HPS) meeting in Spokane, NORM/TENORM Industry Day will be held 19 July 2016 for those interested in naturally occurring radioactive material/technologically enhanced naturally occurring radioactive material issues in mining and oil- and gas-recovery activities.

<p><i>Upcoming NCCHPS Meetings...</i></p> <p>January 21, 2016 Joint NCCHPS-ANS Meeting</p> <p>March 17, 2016 HPS President-Elect Visit</p> <p>May 19, 2016 Affiliate Night</p> <p>Mailing Address: NCCHPS 4435 First Street #141 Livermore, CA 94550</p> <p>Email: <a href="mailto:ncchps@gmail.com">ncchps@gmail.com</a></p> <p>Website: <a href="http://hpschapters.org/ncchps/">http://hpschapters.org/ncchps/</a></p> <p>Newsletter Editor: Warren TenBrook <a href="mailto:warren@tenbrook.org">warren@tenbrook.org</a> (925) 423-1470</p> <p>Affiliate Liaison: Nelson Chiu <a href="mailto:ncchpsaffiliatecontact@gmail.com">ncchpsaffiliatecontact@gmail.com</a> (414) 559-5586</p>	<p><b><u>The Next NCCHPS Meeting!</u></b></p> <p><i>Please note the no-host meet &amp; greet begins a bit earlier than usual, dinner at the regular time</i></p> <p>5:30 pm- 7:00 pm no-host meet &amp; greet, 7:00 pm – 8:00 pm buffet dinner, 8:00 pm announcements and presentation.</p> <p>Berkeley Yacht Club (North end of the Berkeley Marina) 1 Seawall Dr. Berkeley, CA 94710 <a href="http://www.berkeleyyc.org">http://www.berkeleyyc.org</a></p> <p>The buffet dinner menu will feature: Rosemary chicken Poached salmon Vegetarian lasagna Rice pilaf, roasted potatoes, and vegetable medley Dessert, coffee and tea</p> <p>Please register by Midnight on January 11, 2016 using the form below</p> <p><a href="http://hpschapters.org/ncchps/dinner.php3">http://hpschapters.org/ncchps/dinner.php3</a></p> <p>NCCHPS members \$30 (\$35 @ door) Guests \$35 Students \$10 Non-members \$40</p> <p>Only online registrations accepted. Contact Craig Maxwell <a href="mailto:craig.maxwell56@outlook.com">craig.maxwell56@outlook.com</a> ONLY if you encounter difficulties registering online.</p> <p>Please note that in order to avoid unnecessary costs to the Chapter, you may be charged for no-shows. Cancellations may not be made after the RSVP deadline.</p>	<p><b><u>2015-2016</u></b> <b><u>NCCHPS</u></b> <b><u>Board Members:</u></b></p> <p>President Greg Jones <a href="mailto:jones88@llnl.gov">jones88@llnl.gov</a> (925) 423-9875</p> <p>President-Elect Lydia Tai <a href="mailto:Tai4@llnl.gov">Tai4@llnl.gov</a> (925) 422-0475</p> <p>Past President Jon Dillon <a href="mailto:dillon10@llnl.gov">dillon10@llnl.gov</a> (925) 423-6167</p> <p>Secretary Maranda Cimeno <a href="mailto:mcimeno@slac.stanford.edu">mcimeno@slac.stanford.edu</a> (650) 926-7978</p> <p>Treasurer Melissa Mannion <a href="mailto:MCMannion@lbl.gov">MCMannion@lbl.gov</a> (510) 486-4423</p> <p>Member-at-Large Claire Vandevoorde <a href="mailto:cvandevoorde@illumina.com">cvandevoorde@illumina.com</a> (650) 293-7329</p> <p>Member-at-Large Craig Maxwell <a href="mailto:Craig.maxwell56@outlook.com">Craig.maxwell56@outlook.com</a> (415) 264-2983</p>
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