

PTSOS is brought to you by



The Northern California and Nevada Section of the American Association of Physics Teachers (NCNAAPT) has been a professional community for high school and college physics teachers since 1956. Its spring and fall meetings bring members together for learning and sharing about the latest developments in physics and physics instruction. The association maintains an active website at [www.ncnaapt.org](http://www.ncnaapt.org).

**And made possible by a grant from The Karl L. Brown Memorial Scholarship Fund**

Dr. Karl L. Brown (1925- 2002) was a research physicist at the Stanford Linear Accelerator Center and a pioneer in the development of the compact linear accelerator for cancer treatment, which aims highly precise radiation beams at tumors while minimizing exposure to healthy surrounding tissues.



**Physics Teacher SOS Web Address**

[www.ptsos.org](http://www.ptsos.org)

Includes workshop registration information, dates and other useful links.

**Contact Information**

*Outreach Coordinator*

Stephanie Finander: [sfinander@sbcglobal.net](mailto:sfinander@sbcglobal.net)

*Workshop Leaders*

Paul Robinson: [pablo@laserpablo.com](mailto:pablo@laserpablo.com) • 650-400-9425

Dan Burns: [dburns@lgsuhd.org](mailto:dburns@lgsuhd.org)

Physics Teacher SOS  
260 King Street #1607  
San Francisco, CA 94107

# Physics SOS Teacher



Where Northern California's new and newly assigned physics teachers are mentored by successful, experienced physics teachers...

*for free!*



## ***Fifty percent of new teachers leave teaching within five years...***

The call to recruit new teachers is heard across the nation. Efforts to retain new teachers are sporadic or non-existent. It's tough enough being a new teacher. Being a new physics teacher involves a special set of challenges.

- *You have very little laboratory apparatus*
- *Some of what you do have is a complete mystery*
- *You're not sure what to make of content standards and statewide assessments*
- *Your physics enrollment is low*
- *Worst of all, there's no one you can ask for physics teaching guidance*

## **That's where Physics Teacher SOS comes in!**

Physics Teacher SOS (PTSOS) offers workshops, mentors, and online support for new and newly assigned physics teachers in Northern California. There is no cost to individual teachers or their schools for these services. Any teacher newly assigned to teach physics within the last five years is encouraged to participate.

## **PTSOS Workshops**

Workshop leaders guide new teachers through a variety of activities and discussion topics, including

- *effective demonstrations (and how to demonstrate them effectively)*
- *how to deal with paperwork*
- *minimizing lecture*
- *lab group management*
- *funding and how to be prepared for it*
- *how to increase physics enrollment*
- *content standards and statewide assessments*
- *managing apparatus*
- *integrating technology into curriculum*
- *effective presentation (PowerPoint) techniques*
- *topics brought up by the new teachers in attendance.*

Attendees are given a variety of support materials at the workshop.



## **PTSOS Mentors**

New teachers are paired with experienced, local physics teacher mentors. The mentors are there to provide one-on-one guidance where needed and to answer questions that come up throughout the school year.

## **PTSOS Online Community**

Physics Teacher SOS maintains an online discussion group. Workshop leaders and mentors monitor the messages and add to the ongoing discussion of topics as they arise.

## **PTSOS Program Leaders**

### **Paul Robinson** · *Workshop Leader*

SAN MATEO HIGH SCHOOL (retired)

Paul has taught high school physics since 1974. He is a long-time member of and contributor to NCNAAPT and is currently Historian. He is the author of the *Conceptual Physics* lab manuals. He is a recipient of the Presidential Award for Excellence in Math and Science Teaching. Over the course of Paul's 38-year teaching career he has taught all levels of physics that spans 8th grade Physical Science AP Physics at the high school to introductory astronomy and physics for liberal arts students to scientists and engineers at Community Colleges. Regardless of the level, his specialty has been to make physics fun.

### **Dan Burns** · *Workshop Leader*

LOS GATOS HIGH SCHOOL

Dan has been teaching high school physics since 1992. He has been a member, officer, and contributor with NCNAAPT. He works with the SETI Institute, USGS, AAPT, SJSU, and serves as the Faculty Scholar at the Lawrence Livermore National Laboratory. During Dan's career he has taught a variety of levels of physics and currently teaches a full-load of AP Physics with calculus.

### **Stephanie Finander** · *Outreach Coordinator*

WOODSIDE HIGH SCHOOL

Stephanie has taught high school physics since 1990. She is a long-time member of and contributor to NCNAAPT, formerly taught at San Mateo High School and currently teaches AP Physics and Calculus at Woodside High School.

