

SPIE Senior Members: A dazzling group

Barbara Darnell's passion for science education and her commitment to serve as a role model for future women scientists is almost as dazzling as the giant kaleidoscope she built in 2009 and brings or sends to science fairs and related activities every year.

In the last year, the 4-foot long kaleidoscope has been the center of hands-on optics demonstrations at the USA Science & Engineering Festival in Washington, DC, a laser camp for high school students in Connecticut, and the Cambridge (MA) Science Festival where more than 4000 future scientists explored the magic of multiple reflections.

It is made from simple, inexpensive materials: a 9-inch diameter, 4-foot-long cardboard tube, a spring-form cake pan for an eyepiece, colored beads and foils, and closet mirrors. The tube is mounted in a stand made of polyvinyl chloride plumbing pipe.

Service to SPIE

Darnell's eagerness to volunteer for numerous optics outreach activities and her service on the SPIE Education Committee were key factors in her being promoted to SPIE Senior Member this year. She was also recognized for her distinguished achievements in novel applications of optical materials.

Darnell, president of ScinTech in Massachusetts, is one of more than 150 distinguished SPIE members who are being promoted to SPIE Senior Member in 2011. SPIE Senior Members are members of distinction who are honored for their professional experience, active involvement with the optics community and SPIE, and/or significant performance that sets them apart from their peers. Darnell is always ready to volunteer for optics

education, says SPIE Senior Member Judy Donnelly of Three Rivers Community College in Connecticut.

"When Barbara learned that Three Rivers' SPIE Student Chapter was hosting a "Junior Laser Camp" for fifth-grade students in May 2010, she immediately volunteered to travel to Connecticut with the giant kaleidoscope to help with the activities," Donnelly says. "She served as a role model as a female scientist, provided a lesson on mirrors, helped the students make mini kaleidoscopes, and just amazed the children with her homemade giant, bedazzled kaleidoscope."

Darnell also volunteered for another laser camp last November, Donnelly says, where about 60 high-school students explored the science and technology of optics/photonics, learned about career opportunities in New England, and engaged in teamwork with students from other schools.

In addition, Darnell has participated in Congressional Visits Day, an annual event sponsored by the ASTRA Science-Engineering-Technology Work Group in which SPIE participates, to advocate for increased funding for science, technology, engineering, and math education and other science-based initiatives.

She has served as chair of the SPIE Education Committee for two years, is chair of the SPIE Education Outreach Grants subcommittee, and was featured in the 2009 SPIE Women in Optics calendar (spie.org/darnell).



SPIE 
Senior Member

Breakfast for Senior Members

All SPIE Senior Members are invited to a breakfast at SPIE Optics and Photonics in San Diego Wednesday 24 August.

For more information or to RSVP, email brentj@spie.org.

To see a list of SPIE Senior Members, go to spie.org/seniormember.

Science Outreach

The USA Science & Engineering Festival was a two-week celebration of science last October, with dozens of events, contests, and exhibits at a two-day expo that drew half a million people to Washington, DC, to learn about science, technology, engineering, and math.

SPIE was in the middle of it all with a booth about Putting Light to Work. The main feature of the booth was SPIE Senior Member Barbara Darnell's giant, bedazzled kaleidoscope. During the two-day expo, people of all ages lined up to peer through the tube.

In fact, there was rarely a moment it wasn't being used.

