

# THE SPS OBSERVER

AMERICAN  
INSTITUTE  
OF PHYSICS

*The Magazine of the Society of Physics Students*



One of SPS's greatest assets is its diversity. SPS members have gone on to pursue a multitude of interesting and unusual career paths. Now, more than ever, we seek to draw on the wisdom and experience of the SPS members.

With help from the American Institute of Physics (AIP), SPS is attempting to locate the names and whereabouts of people with BS, MS, or PhD degrees in physics whose careers have taken them away from the "traditional" physics community. Therefore, if you work outside the traditional physics community, please provide us with the foregoing information. Also, if you know of others in similar situations, please encourage them to contact us. Several responses will be selected for both electronic and print publication.

## FEATURES

### SPOTLIGHT ON "HIDDEN PHYSICISTS"

MICHAEL LONG, DIRECTOR, WHITE HOUSE WRITERS GROUP, WASHINGTON, DC

"After earning a BS in physics from Murray State University, and after a year of graduate study in physics at Vanderbilt, I eventually became a freelance speechwriter here in Washington, DC. (I hardly ever write about science, by the way. I write about politics and popular culture.) Physics taught me to break down a problem and see it for exactly what it is, no more and no less. This is the key to clear writing."

*These are just a few examples of "Hidden Physicists" who told us their stories and are therefore no longer hidden. For more stories, point your browser to [www.spsnational.org/cup/hidden.html](http://www.spsnational.org/cup/hidden.html).*

#### SPRING 2002 RADIATIONS, ROBERT R. RICHARDSON, PATENT ATTORNEY, BLACK LOWE & GRAHAM, SEATTLE, WA

"I may be a 'hidden physicist,' but my education in physics has helped me throughout a career around the periphery of physics and as a father. After receiving a BS from the US Naval Academy, I went through the Naval Nuclear Power Program and served as a nuclear-trained submarine officer. A background in physics helped put reactor theory into practice. I am now a patent attorney. Again, a background in physics makes it easier to understand inventions in areas like semiconductors and ultrasound. But, most importantly, an education in physics helps me explain to my children such critical concepts as conservation of angular momentum while spinning around on a kitchen stool or predicting the trajectory of a model rocket.

"Here's one suggestion for uncovering 'hidden physicists.' How about a Sigma Pi Sigma bumper sticker: 'I'm a member of the National Physics Honor Society—and I vote!'"

#### FALL 2002 RADIATIONS, LYNN YOUNG, STAFF SCIENTIST, NATIONAL INSTITUTES OF HEALTH, BETHESDA, MD

"I received my B.S. in physics from Centenary College of Louisiana and my M.S. and Ph.D. in physics from Purdue University. My thesis work was in computational biophysics, and I noticed I enjoyed the computational aspect the most. Thus, my transition to bioinformatics was a natural one, and the National Institutes of Health has proved to be an excellent training ground for this exciting field. Studying physics satisfied my curiosity about the natural world and instilled in me a type of mental discipline toward problem-solving which I did not have."

#### SPRING 2001 RADIATIONS, ELLIOT FISCHER, GENERAL DYNAMICS, WHIPPANY, NJ

"I received a BS in physics and math and a PhD in applied math with a thesis in general relativity. I have spent all of my career (24 years) developing algorithms and systems for the military. These have included target detection and identification algorithms and adaptive algorithms for active control systems. My knowledge of physics has been instrumental in understanding the sources of noise that I have dealt with, as well as how these sources propagate in various mediums. While I usually do not have a direct hands-on experience with hardware, my physics background allows me to understand how certain pieces of hardware work and what their limitations are. In addition, we tend to do a lot of what is called Systems Engineering and Analysis, and again I have found that a general physics background is very beneficial. More recently, we are getting into fiber optic transmission systems, and a background in physics there allows me to quickly pick up new concepts. In summary, I have found that the physics I learned as an undergrad has provided me with a great background to assimilate new material throughout my career."