

RECENT NEWS

STORY ARCHIVE

2010

2011

2012

SPECIAL REPORTS:

CLEAN WATER

FINDING VOICE TAKING ACTION

Follow SU on:


[SU Social Media Listing](#)

In the News

U.S. News and World Report reported on research by Linda Ivany (Earth Sciences) about the effect of global warming on El Niño.

America Magazine profiled Mary Karr, Jesse Truesdell Peck Professor of Literature (Creative Writing)

Religion News Service quoted Gustav Niebuhr (religion and media) on interfaith understanding.

A Success magazine feature on primatologist Jane Goodall extensively quotes Dean Emerita Cathryn R. Newton.

Research on the formation of biofilms led by Anthony Garza (biology), is featured on Science 360, Medtech Pulse/Qmed and Bioscience Technology.

Christopher DeCorse (anthropology) is quoted in an Agence France Presse story on slave trade relics found on Bunce Island, Sierre Leone.

National Public Radio interviewed Dana Spiotta (Creative Writing) about her recent book, Stone Arabia.

Astrobiology Magazine, United Press International, and others reported

Arnold Honig, Syracuse University physics icon, dead at 83

Honig was a member of the physics department for 56 years

Feb 6, 2012 | Article by: Judy Holmes



Arnold Honig in his laboratory (2010)

At Syracuse University and beyond, physicist Arnold "Army" Honig will forever be remembered as the "idea guy." A member of the Department of Physics in SU's College of Arts and Sciences for 56 years, Honig died January 31, 2012, just four weeks shy of his 84th birthday. Funeral services were held on Feb. 3.

Born and raised in Bronx, N.Y., Honig was an enigma. During the course of his career, he traveled the globe to participate in scientific conferences, yet he rarely took a vacation. For Honig, the conferences doubled as vacations. "The thought of a real vacation scares me," he once said. "Three days lying on a beach and I'd be finished." Although he achieved emeritus status, Honig never really retired and continued coming up with ideas and doing experiments until his death.

"Army's intense energy, infectious laugh, and deep love of physics helped define the spirit of the Physics Department throughout the past 50 years," says Peter Saulson, the Martin A. Pomerantz '37 Professor of Physics and department chair. "Although he 'retired' in 2004, he was a continual presence, hard at work as recently as last week. We will all miss him."

Honig eschewed the spotlight, yet he was internationally known for his pioneering work in the field of highly polarized nuclear spin systems, a field in which he published his first paper 30 years before the technology that would bring his ideas to full fruition became available. "We did a lot of our work on spin systems out of intellectual curiosity," Honig said in 1999. "We had to wait almost 25 years before the importance of the systems and their applications became known and technologically feasible."

Spin is one of the fundamental properties of atomic particles. Normally, the spins point in various directions, but when the spins line up in the same direction, the particles are polarized. "Army is the principal international authority on the physics and technology of nuclear spin polarization," wrote Eric Schiff, professor of physics in a letter supporting Honig's selection for a 1999 Chancellor's Citation for Academic Achievement. "The laboratory that he and his collaborators built at SU is the best in the world for this type of work."

A quintessential scientist, Honig also played piano, violin, and clarinet. "I remember a party at Army's house during which he played Schubert's Wanderer Fantasy for us," says Marty Abkowitz G'64, who was a principal scientist at Xerox for 33 years and one of the first of Honig's 30 doctoral students. "Quite a guy; quite a spirit. I feel I have lost a family member." Just for fun, Honig invented a matrix piano keyboard from a pneumatic player piano he bought at a garage sale on which he placed 81 keys made from truck-tire valves. His piano idea was patented; it was one of six patents he would obtain throughout his career.

Upcoming Events

South Asia Center Lecture
February 6, 2012 at 11:30 AM
341 Eggers Hall
Victor Yu-Juei Tzen (SU architecture) will discuss the step wells and stepped ponds of Rajasthan and Gujarat, India. The architectural landmarks have been an integral part of life and culture for more than 1200 years.

Biology Lecture Series
February 6, 2012 at 4:00 PM
Lundgren Room LSC 106

Mathematics: Algebra Seminar
February 7, 2012 at 2:00 PM
Physics Building 233

Hindi-Urdu Table
February 8, 2012 at 5:30 PM
307 Tolley Humanities Building

South Asia Center Spring Film Series
February 8, 2012 at 7:00 PM
060 Eggers Hall

K. Douglas Nelson Lecture Series in Earth Sciences
February 9, 2012 at 4:00 PM
113 Heroy Geology Laboratory

La Mesa del Espanol (The Spanish Table)
February 10, 2012 at 12:30 PM
352 Eggers Hall

A Conversation with artist Efen Lopez
February 10, 2012 at 5:30 PM
109 Otisco St., Syracuse

Biology Lecture Series
February 13, 2012 at 4:00 PM
Lundgren Room LSC 106

2012 Raymond Carver Reading Series
February 15, 2012 at 5:30 PM
Gifford Auditorium, HBC

Arts and Sciences Events
SU News

on research by Suzanne Baldwin and Joseph Kula (Earth Sciences) about water on Mars.

But Honig's deep and abiding love for pure science is perhaps his greatest legacy, which inspired generations of graduate students who will carry his ideas into the future. "It took me awhile to appreciate how much I really love science," Honig said in a 2001 Connections magazine article. "With science, every day provides the possibility of a new, open adventure . . . it's the most exciting thing in the world for me."

Jingyu Lin G'89 and Hongxing Jiang G'86 met, married, and started a family as doctoral students in Honig's lab during the 1980s and now hold endowed chairs at Texas Tech University. "Arny stayed with us until 3 a.m. during an experiment in which we saw an abrupt jump in photo-induced persistent current in CdS as the temperature was raised by less than one degree," they wrote in an e-mail after learning of Honig's death. "Arny told us that one can only see such beautiful experimental results a few times in a lifetime. We have come to realize that to Arny, every experiment belongs to those 'few in a life-time experiences.' His excitement for science was contagious. His deep love for science and for his students inspires us everyday and reminds us why we are doing what we are doing and where our academic roots lie."

Honig arrived at SU in 1956, three years after completing a Ph.D. in physics at Columbia University and fresh out of a post-doctoral appointment in Paris. He was interested in low-temperature physics and magnetic resonance, but did not want to join an established research group. He wanted to start his own lab so that he would be free to go in new directions. SU offered him that opportunity and he devoted his career to



Arnold Honig at a 2010 celebration in his honor. Front row, left to right: Jingyu Lin G'89, Marty Abkowitz G'64, and Ronnie Abkowitz. Back row, left to right: Xongxing Jiang G'86, Larry Honig, Arny Honig, and Jonathan Honig

discovering how minute particles of matter behave in temperatures that are as close to absolute zero as technology allowed.

Honig's seminal work on highly polarized nuclear spin systems came to fruition during the late 1990s when he created the first spin-polarized hydrogen targets for a large nuclear physics experiment at Brookhaven National Laboratory. The targets were critical to the success of that experiment and were also used at the Thomas Jefferson National Accelerator Facility in Newport News, Va. Researchers at major laboratories in France and Japan duplicated Honig's process to produce their own targets.

Honig was the first in the world to polarize ^{129}Xe (one of the isotopes of xenon, a heavy inert gas) at extremely low temperatures, and in 2000 received a patent for the process he designed, dubbed the "Relaxation Switch Method." Xenon is used as a contrast agent in medical magnetic resonance imaging (MRI) and is now a critical component in the study of dark matter. "No one had been able to polarize xenon at extremely low temperatures," Honig said at the time. "We wanted to see if we could do it. There were some very interesting physics involved."

Durdana Balakishyeva G'06, a post-doc at the University of Florida who worked on the xenon project with Honig, is using what she learned in her work with the national **Cryogenic Dark Matter Search** (CDMS) experiment. CDMS is a large-scale collaboration of 18 institutions, including SU.

For Honig, exploring the unknown made life worth living. There were always new ideas even to the day he died, along with a high level of confidence that his experiments would ultimately work. "Of course the experiments worked," he said with his broad, trademarked grin after his success with xenon. "I always knew that we would push until they did."

Honig is survived by his wife, Dolly; his children, Lawrence (Genia) Honig, Madeleine (Richard) Lenski, and Jonathan (Eveline) Honig; his stepchildren, Arne (Kelly) Komar and Tanya Komar; his nine grandchildren; his three step-grandchildren; his great-granddaughter; his sister, Shirley Weston; and his former wife, Alice Honig.

Contact Information

Judy Holmes
jlholmes@syr.edu
315-443-8085

[COLLEGE HOME](#)

[SYR.EDU](#) [GIVING](#) [CONTACT](#)

The College of Arts and Sciences | Syracuse University | 301 Hall of Languages | Syracuse, NY 13244
(315) 443-2201 | visitas@syr.edu | webmaster@syr.edu

Copyright 2011 © The College of Arts and Sciences