

Nobel-winning physicist Martin Perl dies at age 87 (Update)

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In this Dec. 16, 2008 file photo, American physicist, and Nobel laureate Martin L. Perl, speaks at a Science Conclave at the Indian Institute of Information Technology in Allahabad, India. Stanford University said Perl , who discovered a subatomic particle known as the tau lepton, died Tuesday, Sept. 30, 2014, at Stanford Hospital in Palo Alto, Calif.. Perl, He was 87. (AP Photo/Rajesh Kumar Singh, File)

Martin Perl, a Nobel Prize-winning physicist from Stanford University who discovered a subatomic particle known as the tau lepton, has died at age 87.

The university said the retired professor, one of two American scientists who shared the Nobel Prize for physics in 1995, died at Stanford Hospital on Tuesday.

He was recognized for work he did during the 1970s at the Stanford Linear Accelerator Center, a federally funded laboratory where scientists investigate the tiniest pieces of nature.

At the time Perl discovered the tau lepton, many physicists doubted the particle that would turn out to be a heavyweight cousin of the electron existed. He eventually proved them wrong using a new kind of accelerator in which electrons and positrons course in opposite directions and collide.

"People wanted me to be cautious," Perl recalled in a 2013 interview with Stanford staff. "We kept taking data, and the evidence kept coming in. Every month or so we would get another handful—10 to 20—of these funny events. I gave a lot of talks. There would be all sorts of objections. ... We eventually eliminated every other explanation."

In a 1995 interview with The Associated Press, Perl acknowledged that while his research defied easy explanation, he hoped that understanding the building blocks of matter would lead to advancements in fields such as alternative energy.

"We're trying to get to simplest ideas of matter and energy. That could lead in the end to things that would help all sorts of fields," he said. "If you don't do basic research, in the end you won't have a foundation for other discoveries."

Born in New York City to Polish-immigrant parents in 1927, Perl earned his Ph.D. at Columbia University while studying under Nobel-winning physicist Isidor Isaac Rabi. He worked at the University of Michigan until he came to Stanford in 1963 as its linear accelerator was being construction.

One of his four children, Joseph Perl, works as a software developer and researcher at the Stanford Linear Accelerator Center. He said his father kept coming to work in the lab and to trade ideas with colleagues for years after his official retirement.

"It was the one place in the whole world to be, to do what he wanted to do," Joseph Perl said. "He always advocated that you should look at what the crowd is doing and go in a different direction."

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