

Dr. David Pines '40

2017 Distinguished Alumna

Dr. David Pines is the epitome of what a distinguished alumnus of HPHS should be. He has achieved excellence in his career field, theoretical physics. He exhibits the highest ethics and support of his fellow man, as, in addition to his many important scientific contributions, he has founded or played a key role in building a number of scientific institutions, including the Santa Fe Institute, the Aspen Center for Physics, the Institute for Complex Adaptive Matter [ICAM], the Global Partnership of Scientists Engaged in Education [GSEE], the lecture note series, Frontiers in Physics, and the journal, Reviews of Modern Physics. His passionate belief in the value of international cooperation in science led to his becoming the Founding Chair of the National Academies Board on International Scientific Exchange and, during the Cold war period, Founder and Co-Chair of the US/USSR Workshops in Condensed Matter Theory from 1968-1988, and Founder and Co-Chair, the US/USSR Commission on Cooperation in Physics, 1975-80.

David was born in 1924 in Kansas City, Mo. His family moved to the Park Cities in 1938, and David spent his junior and senior year of high school at HPHS. Just before this 16th birthday, he graduated as Valedictorian of his graduating class of 1940. He received an A.B. in mathematics and physics from UC Berkeley in 1944; following two years in the US Navy, he spent a year doing graduate work at UC Berkeley where his mentor was Robert Oppenheimer, and he became engaged to his wife-to-be, Suzy. He followed Oppenheimer to Princeton in 1947, and received his PhD at Princeton University in 1950 under the supervision of David Bohm. During the next nine years he was a faculty member at Penn, UIUC, and Princeton, spent a year abroad in Copenhagen and Paris, and was a member of the Institute for Advanced Study. He became a Professor of Physics at UIUC in 1959, and remained there until 1999, when he moved to Los Alamos to become the Founding Co-Director of ICAM. In his current position as Founder in Residence, Santa Fe Institute, he continues to maintain an active program of research on emergent behavior in quantum matter, and, through GSEE, is leading a major global educational initiative whose goal is to teach every primary and middle school student how to think like a scientist.

David's contributions to physics and to teaching have been recognized by two Guggenheim Fellowships, by the 2009 John Bardeen Prize for Superconductivity Theory, the 2013 Jackson Excellence in Graduate Education Award of the American Association of Physics Teachers, and the 2016 Lilienfeld Prize from the American Physical Society. In addition to a number of other prizes and awards, he has been elected to the National Academy of Sciences, American Philosophical Society, American Academy of Arts and Sciences, Russian Academy of Sciences, and Hungarian Academy of Sciences and has held visiting professorships at Caltech, College de France, Trinity College, at the University of Cambridge, University of Leiden, and Universite de Paris. His contributions to quantum theory, theoretical astrophysics, and international cooperation were recognized by the University of St. Andrews in 2009, when it awarded him a Honorary Degree.

For all of his accomplishments and brilliance, he is equally appreciated for his charm, wit and ability to inspire others. He and his late wife, Suzy, to whom he was most happily married for 67 years, are the parents of two children, Catherine and Jonathan. David presently divides his time between Santa Fe and Aspen. While visiting Urbana [Illinois] as often as he can to see his three granddaughters, Josie Danielle, Tillie Lynn, and Maisie Mai Pines, who will soon range in age from 17 to 13.