

Curriculum Vitae Professor Dr Persis Drell

Name: Persis Drell



Image: Linda A. Cicero | Stanford News Service

Research Priorities: X-ray technology, free electron laser technology, particle physics, particle astrophysics

Persis Drell is a physicist. She was involved in the development of new x-ray technologies, such as free electron lasers, as well as in the Fermi Gamma Ray Space Telescope Mission that studied the most energy-rich events in space. She measured parameters of quark mixing to gain fundamental insights into the universe. Recently she was concerned with the structures and strategies of large research cooperations.

Academic and Professional Career

since 2002	Professor, Stanford University, Stanford, USA
2017 - 2023	Provost, Stanford University, Stanford, USA
2014 - 2017	Dean, School of Engineering, Stanford University, Stanford, USA
2007 - 2012	Director, Stanford Linear Accelerator Center (SLAC), National Accelerator Laboratory, Stanford University, Stanford, USA
2001 - 2002	Deputy Director, Cornell Laboratory of Nuclear Studies (today: Cornell Laboratory for Accelerator-based Sciences and Education), Cornell University, Ithaca, USA
1998 - 2002	Professor of Physics, Cornell University, Ithaca, USA
1993 - 1997	Associate Professor of Physics, Cornell University, Ithaca, USA
1988 - 1992	Assistant Professor of Physics, Cornell University, Ithaca, USA
1983 - 1987	Postdoctoral Research Associate, Lawrence Berkeley National Laboratory (LBNL), U.S. Department of Energy an der University of California, Berkeley, USA

Functions in Scientific Societies and Committees

since 2017	Member, Board of Directors, William and Flora Hewlett Foundation, Menlo Park, USA
since 2015	Member, Board of Directors, Nvidia Corporation, Santa Clara, USA
2013 - 2018	Member, Advisory Committees, Basic Energy Sciences (BES), U.S. Department of Energy, Washington DC, USA
2012 - 2017	Member, Scientific Council, Deutsches Elektronen-Synchrotron (DESY), Hamburg, Germany
2013 - 2014	Co-Chair, Secretary of Energy Advisory Board (SEAB), U.S. Department of Energy, Washington DC, USA
2010 - 2014	Member, International Evaluation Committee (Comitato di Valutazione Internazionale – CVI), Istituto Nazionale di Fisica Nucleare (INFN), Rome, Italy
2008 - 2014	Member, Visiting Committee, Physics, Massachusetts Institute of Technology (MIT), Cambridge, USA

Project Cooperation, Membership in Collaborative Research Projects

2004 - 2016	Fermi Gamma Ray Space Telescope, Stanford University, Stanford, USA
1988 - 2002	CLEO (Detector) Collaboration, Cornell Electron Storage Ring (CESR), Cornell University, Ithaca, USA
1984 - 1988	Mark II (Detector) Collaboration, Stanford Linear Collider (SLC), Stanford University, Stanford, USA

Honors and Awarded Memberships

since 2023	Member, German National Academy of Sciences Leopoldina, Germany
2022	Fellow, American Association for the Advancement of Science (AAAS), USA
2012	Helmholtz International Fellow Award, Helmholtz Association, Berlin, Germany
2010	Member, National Academy of Sciences, USA
2007	Member, American Academy of Arts and Sciences, USA
1998	Fellow, The John Simon Guggenheim Memorial Foundation, USA
1997	Fellow, American Physical Society (APS), USA
1988	Presidential Young Investigator Award, National Science Foundation (NSF), USA

Research Priorities

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Persis Drell was involved in the development of the first free-electron laser. These lasers can reveal highly detailed structural information of macro molecules by emitting ultrashort X-ray pulses. A team around Persis Drell was able to thus reveal the architecture of proteins in great detail. She further studied a variety of quark mixings to investigate the CP violation, which is a miniscule violation of the symmetry between particles and antiparticles.

Recently Persis Drell was concerned with the support and organization of research collaborations. Here, her focus is on large scientific infrastructures that attempt to answer complex questions like the efficient generation of clean energy. She develops structures for large research teams on both the national and international level that aim towards providing optimal conditions for fundamental research questions.