

Anthony L. Peratt Professional Biography



Dr. Anthony L. Peratt received his Ph.D. in electrical engineering/plasma physics in 1971 from the University of Southern California, Los Angeles. Earlier degrees include the MSEE, USC, 1967; UCLA, 1963-1964, BSEE, California State Polytechnic University. He was a staff member at Lawrence Livermore National Laboratory (1972-1979); a guest physicist at Max-Planck-Institut für Plasmaphysik, Garching, Germany (1975-1977); a guest scientist, Alfvén Laboratory of the Royal Institute of Technology in Stockholm, Sweden (1985); and at the University of California, Los Alamos National Laboratory from 1981 to the present serving in the Applied Theoretical Physics Division, Physics Division, Associate Laboratory

Directorate for Experimental Programs, and as scientific advisor to the United States Department of Energy (1995-1999) where he served a term as acting director of national security in the Nuclear Non-Proliferation Directorate.

In 2006, Dr. Peratt was the recipient of the Los Alamos National Laboratory Director's 30 Years, University of California Service Award.

Dr. Peratt's research interests have included numerical and experimental contributions to high-energy density plasmas and intense particle beams; explosively-driven pulsed power generators; lasers; intense-power-microwave sources; particles; high energy density phenomena, Z-pinches, and inertially driven fusion target designs.

From 1991-1993 Dr. Peratt led the N-Tunnel Diagnostics Program for Los Alamos at the Nevada Test Site nuclear testing ground where he participated in four tunnel experimentals, two high-yield experiments atop Rainer Mesa, and half-a-dozen medium yield down-hole experiments fielding his diagnostics instrumentation.



Dr. Peratt's diagnostics instrumentation.

In 1993, Peratt was designated team leader for the American Team inspection of the Russian Arctic nuclear test site, Novaya Zemlya, training at the Naval Air Weapons Station, Point Mugu, cold weather facility.

Dr. Peratt, Point Mugu cold weather station.

He has served as session organizer for space plasmas, IEEE International Conference on Plasma Science 1987-1989; Guest editor, Transactions on Plasma Science, special issues on Space Plasmas 1986, 1989, 1990, 1992, 2000, 2003; Organizer, IEEE International Workshops on Space Plasmas, 1989, 1991, 1993, 1995, 1996,



1997, 1998, 2003; Associate editor, Transactions on Plasma Science, 1989; Elected member of IEEE Nuclear and Plasma Science Society executive committee from 1987-1989 and 1995-1997; General Chairman, IEEE International Conference on Plasma Science, Santa Fe, New Mexico, 1994; IEEE NPSS ExCom vice chairman 1997; Elected to the IEEE NPSS Administrative Committee, 1997; named an IEEE Fellow, 1999.

He holds memberships in the American Physical Society, American Astronomical Society and Eta Kappa Nu and was awarded the United States Department of Energy Distinguished Performance Award in 1987 and 1999 and the IEEE Distinguished Lecturer Award in 1993.

In 1994, Peratt was designated the Norwegian Academy of Science and Letters Kristian Birkeland Lecturer for his adaptation of Birkeland's Plasma Torch for mixed-waste vitrification.



Dr. Peratt signing the guest book in Nortodden, Norway, during his award tour in 1995.

Academic Publishers (1997).

Dr. Peratt is the author of "Physics of the Plasma Universe, Springer-Verlag" (1992); the editor of "Plasma Astrophysics and Cosmology", Kluwer Academic Publishers (1995); and the editor of "Advanced Topics in Space and Astrophysical Plasmas", Kluwer

Currently, Dr. Peratt is a member of the Museum of Archaeology and Anthropology, University of Pennsylvania, Philadelphia, doing interdisciplinary research employing space plasma techniques to study problems in archaeology: the occurrence on a very-

high-intensity solar storm and its concomitant Earth enveloping aurora as recorded by mankind in antiquity in the form of petroglyphs and pictographs. Further information may be found at <http://plasmascience.net/tpu/NearEarth.html>. Anthony Peratt can be reached at alp@ieeetps.org or <http://public.lanl.gov/alp/plasma/universe.html>.