



Who's New Member Spotlight

Anthony L. Peratt, Senior Staff
[Los Alamos National Laboratory](#)

Los Alamos, NM, USA

Lifetime Member since March 2008

Biography

Dr. Anthony Peratt specializes in completing interdisciplinary research and employing space plasma techniques to study problems in archaeology. He is part of the senior staff at Los Alamos National Laboratory in Los Alamos, New Mexico. Los Alamos National Laboratory is a national security research institution that focuses on delivering scientific and engineering solutions to ensure the safety, security and reliability of the nation's nuclear deterrent.

Dr. Peratt has extensive experience in conducting research on space plasma physics. His education includes a Ph.D. in electrical engineering and plasma physics from the University of Southern California, Los Angeles in 1971, a master of science in electrical engineering from the University of Southern California in 1967 and a bachelor of science in electrical engineering from California State Polytechnic University.

Dr. Peratt is a member of the University of Pennsylvania Museum of Archaeology and Anthropology; American Physical Society; American Astronomical Society; Eta Kappa Nu and the Institute of Electrical and Electronics Engineers (IEEE). He earned the United States Department of Energy Distinguished Performance Award in 1987 and 1999, the IEEE Fellow Award in 1999 and the IEEE Distinguished Lecturer Award in 1993.

Interview:

Tell me a little about what you do.

I conduct interdisciplinary research, where I employ space plasma techniques to study problems in archaeology such as the occurrence of a very high-intensity solar storm and its concomitant Earth-enveloping aurora, which was recorded by mankind in the form of petroglyphs and pictographs.

What are your short-term and long-term goals and what steps have you taken toward achieving them?

Within the next five years I hope to continue being a leading authority on plasma phenomena.

What are you passionate about?

Plasma physics, space plasmas, and mankind's prehistory; my 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 inertia-driven fusion target designs.

What makes you a valuable resource in your industry?

I have extensive experience in all facets of this industry. I have served as a staff member at Lawrence Livermore National Laboratory; guest physicist at Max Planck Institut für Plasmaphysik, Garching, Germany; guest scientist at Alfvén Laboratory of the Royal Institute of Technology, Stockholm, Sweden; scientific advisor to the United States Department of Energy and acting director of national security in the Nuclear Nonproliferation Directorate. I have also organized several conferences and served as a guest editor for several special issues of the IEEE publication, *Transactions on Plasma Science*.

What do you consider yourself to be an expert on?

I consider myself to be an expert on plasma phenomena and space plasma physics.

What steps did you take/are you taking to establish yourself as an expert in your field?

I have studied in the field extensively through my pursuit of advanced degrees. Specifically, I have earned a Ph.D. in electrical engineering and plasma physics, a master of science in electrical engineering and a bachelor of science in electrical engineering. I have also joined professional societies to keep abreast of recent developments within the industry, and I make it a point to share my knowledge with others through lecturing and public speaking.

Have you published any work (article, book, chapter, etc.)? If so, please identify and describe the focus of the work.

I wrote a book called, *Physics of the Plasma Universe*, published by Springer-Verlag in 1992. The book addressed the need to apply our understanding of plasma physics toward nuclear fusion and space physics. I have also served as the editor of *Plasma Astrophysics and Cosmology* published by Kluwer Academic Publishers. This book is an update on the observations made in radio, optical and high-energy astrophysics over the last decade featuring contributions from 20 distinguished scientists in the field of plasma physics. In addition I was the editor for *Advanced Topics in Space and Astrophysical Plasmas* published by Kluwer Academic Publishers in 1997.

For more information about Dr. Anthony Peratt please read his [professional biography](#).

“Who’s New” welcomes and introduces members who are new to the Cambridge Who’s Who community. Three new Cambridge Who’s Who members are featured in this section per newsletter.

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Issue 2, August 2008

