

The Columbia University Astrophysics Laboratory invites applications for a Postdoctoral Research Scientist position involving complementary studies in experimental plasma physics and solar physics. The objective of this project is to deepen our understanding of MHD wave damping processes relevant to the heating of the solar corona. This will be carried out through laboratory experiments and related coronal observations. Some key plasma physics processes to be studied include Alfvén wave reflection, phase mixing, and dissipation. The successful candidate will join the group of Drs. Daniel Wolf Savin and Michael Hahn. The experimental work will be carried out using the Large Plasma Device (LAPD) located at the University of California at Los Angeles (UCLA). The work at LAPD will be performed in collaboration with Prof. Walter Gekelman, Dr. Steve Vincena, and the staff of the Basic Plasma Science Facility at UCLA.

The successful candidate will be appointed and based at Columbia. There will be two one-week-long visits per year to UCLA to carry out experiments. The appointment will be initially for one year, with the possibility of renewal for up to two additional years; this is contingent upon the availability of funds and mutual satisfaction.

The successful candidate will have a Ph.D. or equivalent degree in Physics, Applied Physics, Plasma Physics, Astrophysics, Solar Physics, or a related discipline. Desired laboratory skills include experience with plasma diagnostics such as Langmuir and B-dot probes, RF antennas, associated electronics, ultra-high vacuum systems, and an understanding of basic plasma physics, especially plasma waves. Also desirable is familiarity with solar observational data, especially spectroscopy. Desired computer skills include programming, multidimensional data analysis, Fourier methods, LabView, IDL, the HDF data format, Linux/Mac OS and Windows OS.

The successful candidate will have a strong background in at least some of the areas listed above, a proven research ability, and evidence of future research potential. They are expected to be able to work well independently as well as cooperatively with a team and to communicate the results of their research both orally and in writing. Demonstrated written and oral communication skills are highly desirable. Questions regarding this position can be addressed to Dr. Daniel Wolf Savin at savin@astro.columbia.edu.

Applications should submit a cover letter, curriculum vitae (including a list of publications), and statement of past research. In addition, applicants should arrange to have three letters of reference sent directly by the writers to Dr. Savin. Applications will be considered only after all of the requested material has been received. Applications can be submitted to Dr. Daniel W. Savin, Columbia University, Astrophysics Laboratory, 1027 Pupin Hall, MC 5247, New York, NY 10027, USA, or sent via email to savin@astro.columbia.edu. Screening of applicants will begin immediately and will continue until the position is filled.