

Faculty Name:

Carlos Paz-Soldan

Faculty Email:

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Lab:

Plasma Physics Laboratory

Project Title:

Fire and Ice – Measuring Cryogenic Pellet Ablation with Electron Beams

Description:

The Columbia Plasma Physics Lab is in the process of constructing a new experiment to measure the ablation of cryogenic ice under bombardment by high energy electron beams. This experiment will provide a controlled test-bed for the interaction of cryogenic pellets with high temperature fusion plasmas. Cryogenic pellets are essential components of fusion plasma systems, since they are used to fuel the plasma and to rapidly quench its energy when needed. The student will assist in the development of the lab, the specification of components, and the construction of the experiment. Electrical, vacuum, cryogenic, and data acquisition systems will be commissioned, proceeding towards first commissioning tests of the experiment. Students will also generally assist with other Columbia Plasma Physics Lab initiatives. More information can be found at <https://plasma.apam.columbia.edu>

** This position and others in Prof Paz-Soldan's group have a common application **

** Please apply using the form <https://forms.gle/viSUdEneLy66vFaZ6>. Do NOT email the PI **

** Flexibility in project choice is welcome **

Location of Research:

On Site

of hrs/week:

40

Department/Program:

Applied Physics and Applied Mathematics

Eligibility:

BS, First Year, BS, Second Year, BS, Third Year, BS, Fourth Year

To apply, please contact:

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