

Faculty Name:

Carlos Paz-Soldan

Faculty Email:

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Lab:

Columbia Plasma Physics Laboratory

Project Title:

Predicting the Tokamak Edge with Machine Learning

Description:

The development of predictive models for plasma profiles in fusion energy systems is essential for accurate device planning and design. In this project, we will develop a neural net with this purpose in mind by analyzing and training on a large set of existing data from the DIII-D Tokamak in San Diego. The model will be tested on selected datasets from DIII-D and other machines around the world and should be able to accurately predict the width and height of the plasma pressure pedestal from generalized inputs. Applicants should have a strong coding background, preferably in python. 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

To apply, please contact:

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