

Abstract Submitted
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Increasing Plasma Science Interest among Underprivileged Students ALIYA MERALI, STEPHANIE WISSEL, Princeton Plasma Physics Laboratory, MAUREEN QUINN, Science Mentors 1:1, NICOLE HAMLET, Trenton Public School District, ANDREW ZWICKER, Princeton Plasma Physics Laboratory — For the past three years, PPPL has partnered with NASA to study dusty plasmas, convective flows, and other related topics in μ -gravity. During the last year, we worked with a group of highly-motivated but underprivileged high school students to develop an experiment looking at the Rayleigh-Taylor instability in varying gravitational environments. The students were challenged to design, build and test the experiment to be flown aboard NASA’s “Weightless Wonder.” Students met weekly with PPPL mentors over the course of the 9-month school year. The program provided students with long-term exposure to a scientific experiment, a sense of experimental ownership, and an opportunity to experience the scientific method outside of a classroom setting. Participants used inquiry-based learning techniques to design and build the experiment. We report on impact of the program and the outcome of the students’ continued work.

Aliya Merali
Princeton Plasma Physics Laboratory

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