

Ann Truong wins OLUG Poster Award (April 2024)

P³ Group undergraduate researcher Ann Truong recently attended the 15th OMEGA Laser Facility User Group meeting. Under the direction of PI Pia Valdivia, Ann presented research from a recent shot series on shock propagation in non-homogenous media carried out at the LCLS facility at the Stanford Linear Accelerator (SLAC). For her excellent research and presentation, Ann was awarded one of three Undergraduate Poster Awards.



Ann's work involved the quantification of equations of state, which is vital in characterizing the behavior of a material as its state variables (pressure, density, temperature) change. No universal EOS exists, but for specific materials, an EOS can be formulated. In this case, the shock velocity, an important parameter for determining the EOS, is obtained from VISAR diagnostics for aerogel foams of different densities. The median shock velocity in 20 mg/cc foam targets was found to be about 25 km/s, while it is about 7 km/s in 500 mg/cc foams. This data will be used to benchmark on-going simulation work in collaboration with Los Alamos National Laboratory and Stanford University.

Ann will begin her graduate career at UC San Diego in Fall 2024 through a Masters program in Applied Plasma Physics in the Mechanical and Aerospace Engineering Department.