

Abstract Submitted
for the CUWIP22 Meeting of
The American Physical Society

Finding Extremely High-Velocity Outflows in Sloan Digital Sky Survey Data Release 16 Quasars¹ WENDY GARCIA NARANJO, MIKEL CHARLES, University of Washington, Bothell — Quasars are the most luminous of active galactic nuclei (AGN), because of this we can study them at high redshifts to gain more insight of galactic evolution within our own universe. Here we present a survey extremely-high-velocity outflow (EHVOs) quasars. These are quasars whose outflows move towards us at 10% - 20% the speed of light. Our research group designed a series of Python modules to automate the search for EHVO quasars. Using data from the quasar catalog of the sixteenth data release (DR16Q) from the Sloan Digital Sky Survey (SDSS), we take a parent sample, normalize the spectra, search for absorption, and then confirm the presence of EHVOs through visual inspection. We are in the process of compiling the largest catalog of EHVOs to date and preparing our code for public release.

¹This work is supported by the National Science Foundation Award 2050928, and the Royalty Research Fund and NASA Summer Undergraduate Research Program at the University of Washington.

Wendy Garcia Naranjo
University of Washington, Bothell

Date submitted: 14 Jan 2022

Electronic form version 1.4