
Galactic wind properties using background quasar with MUSE and UVES.

Ilane Schroetter*^{1,2}

¹Institut de recherche en astrophysique et planétologie (IRAP) – CNRS : UMR5277, Observatoire
Midi-Pyrénées, Université Paul Sabatier (UPS) - Toulouse III – France

²Galaxies, Etoiles, Physique, Instrumentation – Institut national des sciences de l'Université, Observatoire
de Paris, Université Paris Diderot - Paris 7, Centre National de la Recherche Scientifique : UMR8111,
Institut national des sciences de l'Université, Institut national des sciences de l'Université, Institut national
des sciences de l'Université – France

Abstract

Supernova driven outflows are thought to play a critical role in regulating the gas and baryonic content of galaxies. Most cosmological simulations rely on various prescriptions to generate these outflows that lack direct observational support due to their low surface brightness. However, these outflows can be constrained using background quasars line of sight passing near star forming galaxies. Using a combination of both MUSE and UVES instruments, we built the MUSE GAS FLOW and Wind (MEGAFLOW) survey. We used the strong low-ionization MgII absorption to constrain the ejected mass rate using a bi-conical model. In this talk, I will present the results we have on these outflows from $z \sim 1$ star-forming galaxies and compare them with simulation predictions.

*Speaker