

## Marie Wingyee Lau (University of California, Riverside)

- Quasar/galaxy evolution, feeding, and feedback:
  - Quasars Probing Quasars (QPQ; with Prochaska); “Extremely red quasars” (ERQs; with Hamann); Quasar-Associated Inflows Legacy Survey (QUAILS; led by me).
- Associated absorption lines provide direct measures of gas inflows that feed the quasar hosts, via their relative redshifts.
- Accurate systemic redshifts based on the [OII]3727 or [OIII]5007 emission are necessary for detecting infall systems.
- Match rest-frame optical spectra to high-resolution rest-frame UV spectra in observatory archives. ~600 matches.
- Preliminary results on one system:
  - SDSS automatic fit  $z_{\text{sys}} = 0.9168 \pm 185 \text{ km s}^{-1}$ .
  - Absorption shifted by  $+(350\text{--}850) \text{ km s}^{-1}$ .
  - Photoionization modeling with Cloudy.
  - Non-detection of the collisionally excited line OIV\*790 puts lower limit to distance.
- Incidence? Physical conditions? Locations? Cosmic evolution?

