Observations of Galactic Winds II: Physical Conditions at low-z

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Much of what we know about outflows comes from analysis of ISM absorption lines: how much can we infer from them?

Si II 1190, Si IV 1402

John Chisholm
Can Starburst-Driven Winds Quench Star Formation in their Hosts?

Extremely young post-starbursts at $z \sim 0.5$

Tremonti et al. in prep.
What’s unusual about these galaxies is that they have very compact cores => high SFR surface densities.
These compact galaxies are in the process of ejecting their fuel for star formation.

-1000 km/s CO (2-1) outflow

dM/dt~700 M\(_\odot\)/yr

How do we get molecular gas to high velocities without destroying it?

Geach et al., in prep.
Does SFR happen *in* galactic winds?
Maiolino et al. 2018: $z \sim 0.04$ LIRG with 
~25% of the SFR occurring in the outflow