HEATING AND COOLING IN THE INTERSTELLAR MEDIUM OF DUSTY, STAR-FORMING GALAXIES

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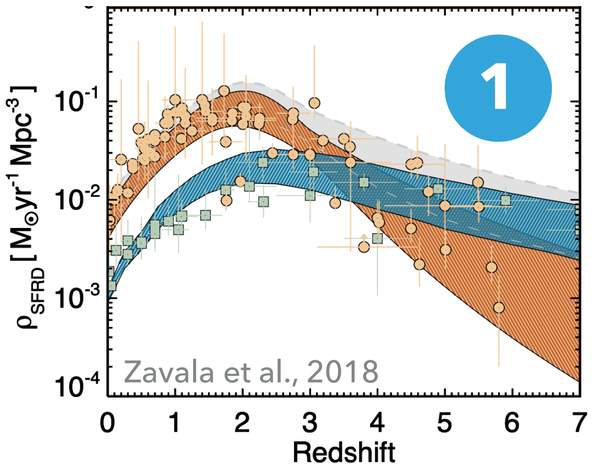
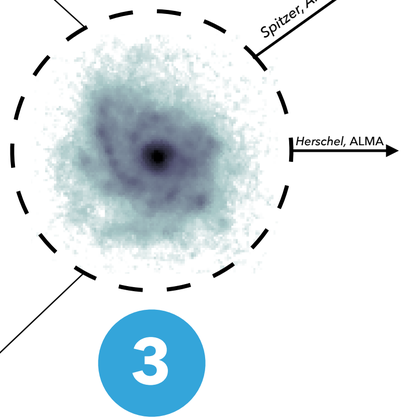
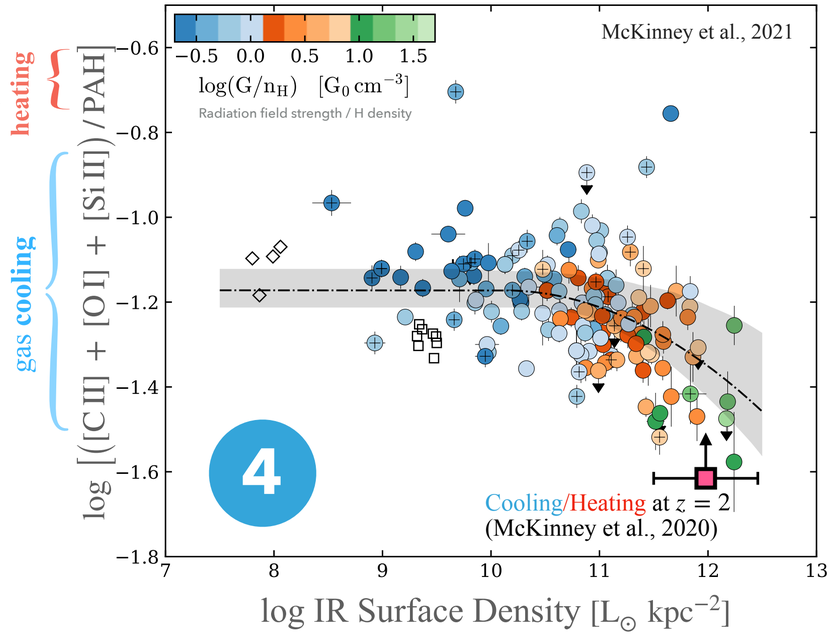
Scan with standard phone camera app to reach my recently-published paper highlighted in this talk.







1. Star formation is preferentially found in dusty galaxies, which are most active about 10 billion years ago ("cosmic noon"), why?
2. Star formation requires gas to cool, the physics of which are complicated but well-understood from galactic observations.
3. I extend the study of gas cooling and heating to samples of dusty galaxies at low- and high-redshift, testing for differences/similarities in how gas heats and cools, to better understand why the star-formation rates of galaxies peak at cosmic noon.
4. Gas in dusty galaxies today is difficult to heat, which may help keep gas cool to form stars even in extreme environments. Galaxies at cosmic noon seem to behave similarly. More observations are needed to explore this effect further!