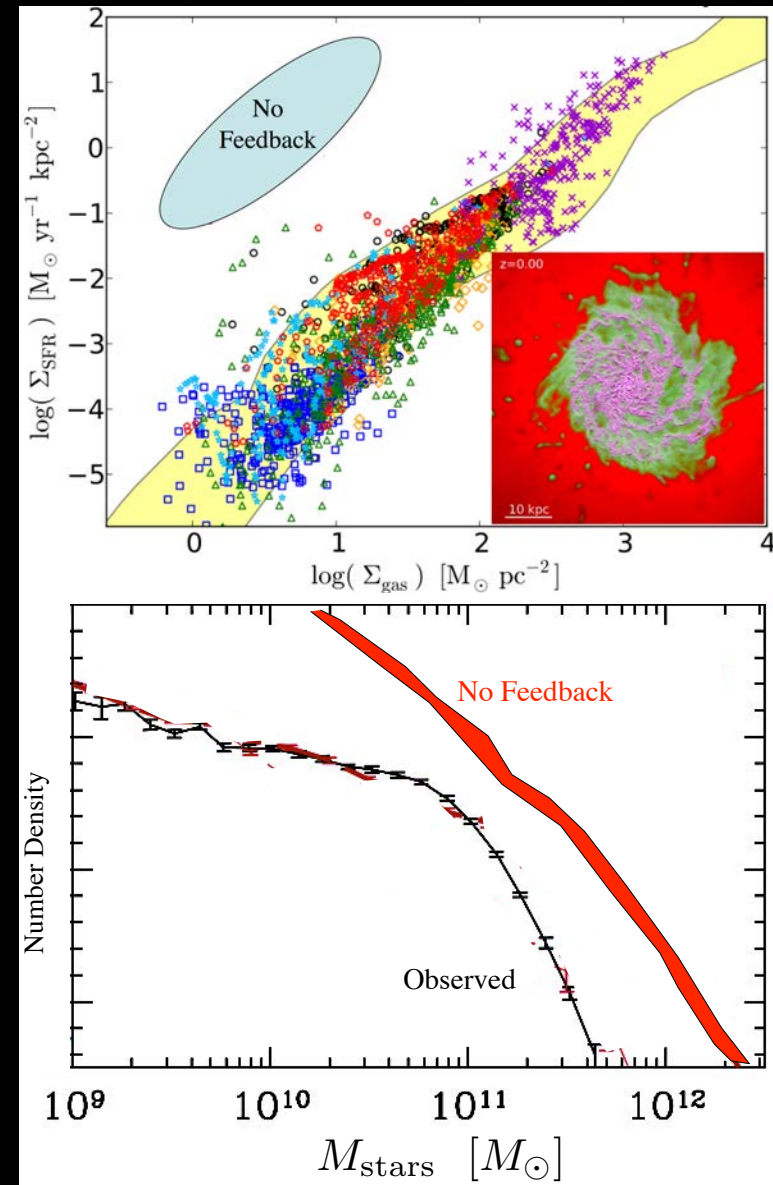


# Feedback & the galaxy 'main sequence'

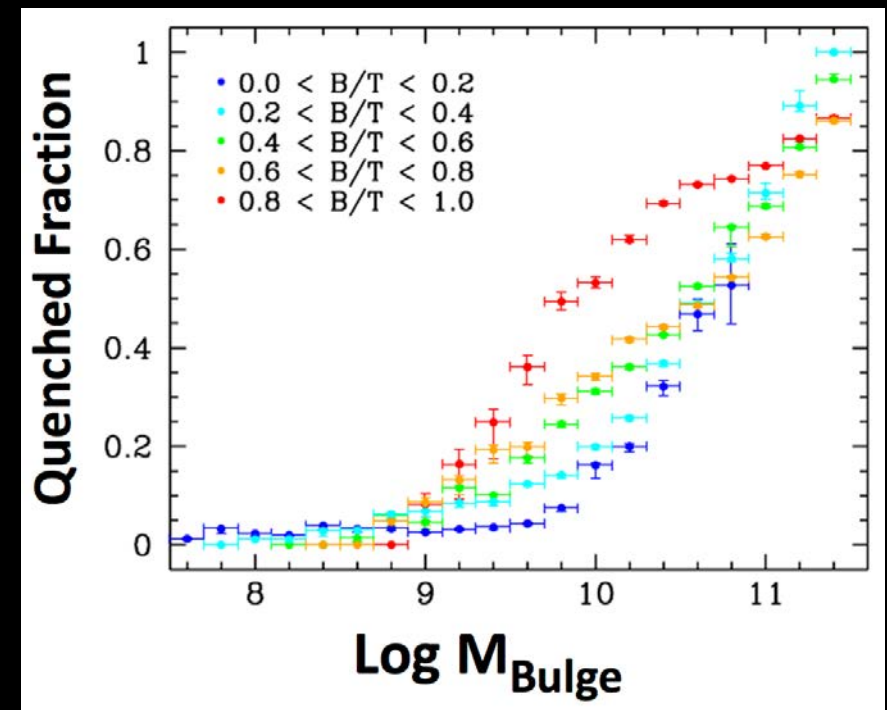
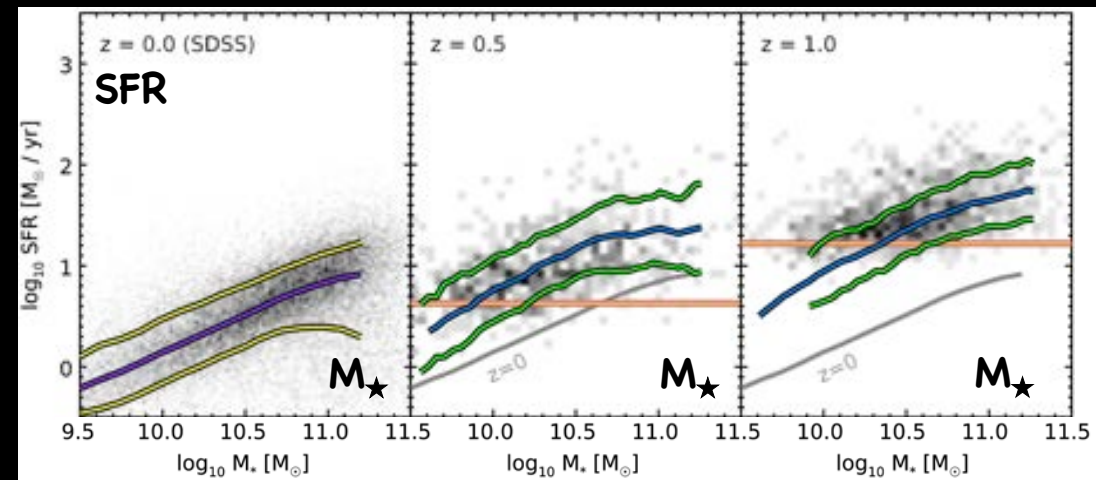
- Hopkins: feedback sets Kennicutt-Schmidt law; independent of small-scale SF law
- Feedback also necessary to reproduce the galaxy stellar mass function
- Outflows provide support for SN feedback (Chisholm)



# The galaxy 'main sequence'

Schreiber +2014

- Much evidence for an evolving correlation between SFR and stellar mass (Elbaz, Lang, Schreiber, Bethermin)
- Bulge mass is a good predictor of quenched fraction (Lang)
- How do the red star-forming galaxies (Eales) fit in?



# The galaxy 'main sequence'

- Open questions: what is the source of tension with models (Mitchell, Hayward)? What drives the scatter, evolution? What moves galaxies above the main sequence? Mergers? Violent disk instability (Dekel)? What quenches them? Which aspects of the MS are informative?
- Different feedback models likely predict differences in e.g. normalization (if feedback efficiency evolves in time), MS scatter (Mitchell, Hayward), B/T (compare with Schreiber's results)
- Path forward for theorists: need statistically significant samples of zooms (Hopkins+, Ceverino, Dekel+) and better feedback models (Hopkins+); then, do detailed comparisons with observations