The role of HI & environment on the galaxy star formation rate-stellar mass sequence turnover

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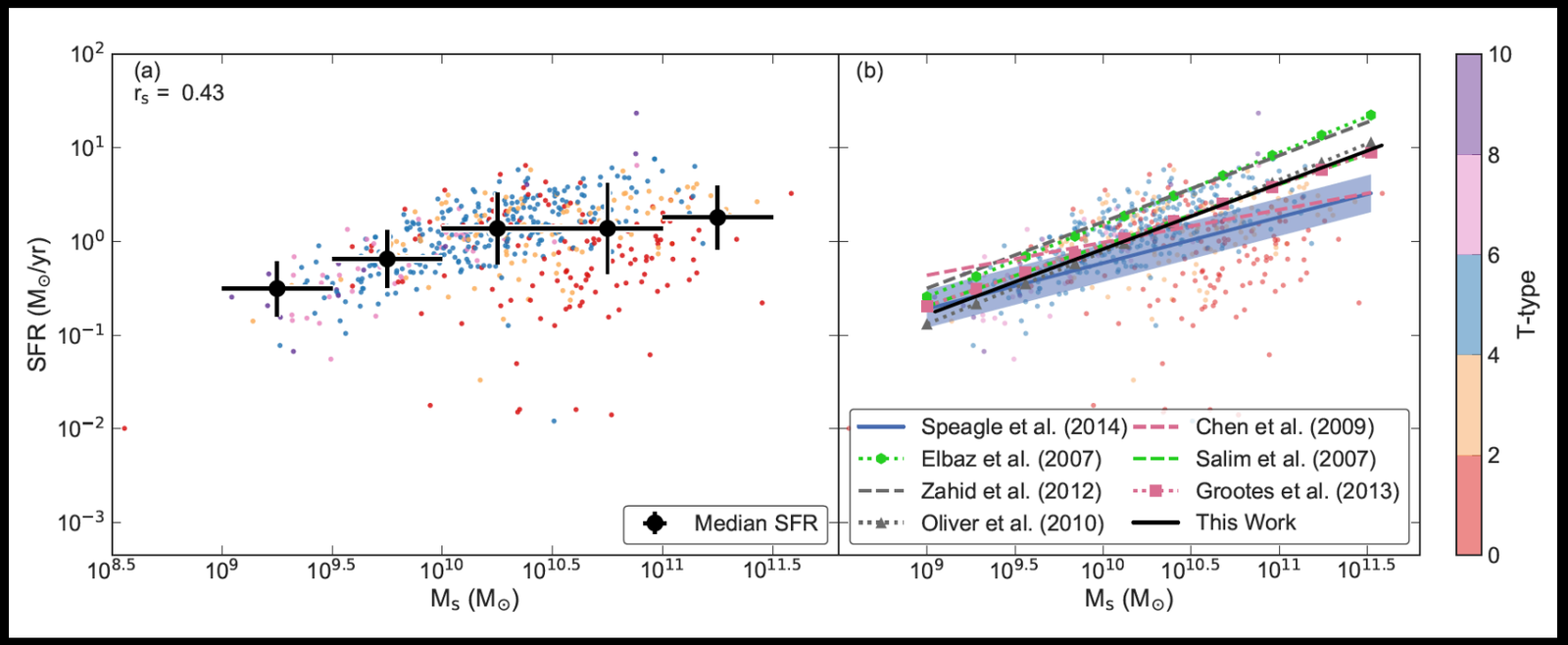
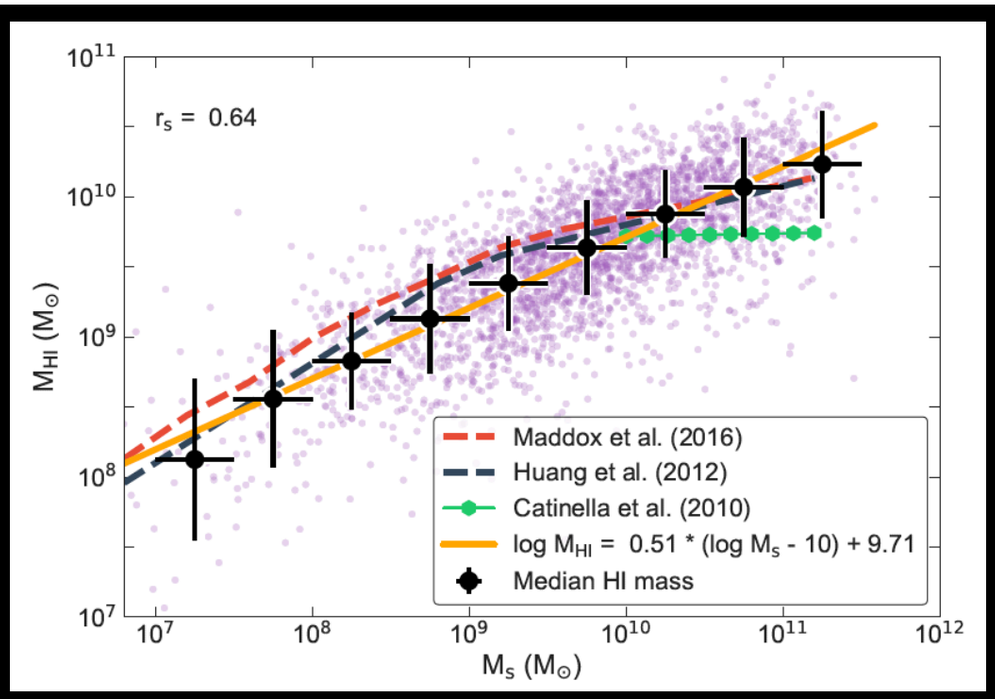
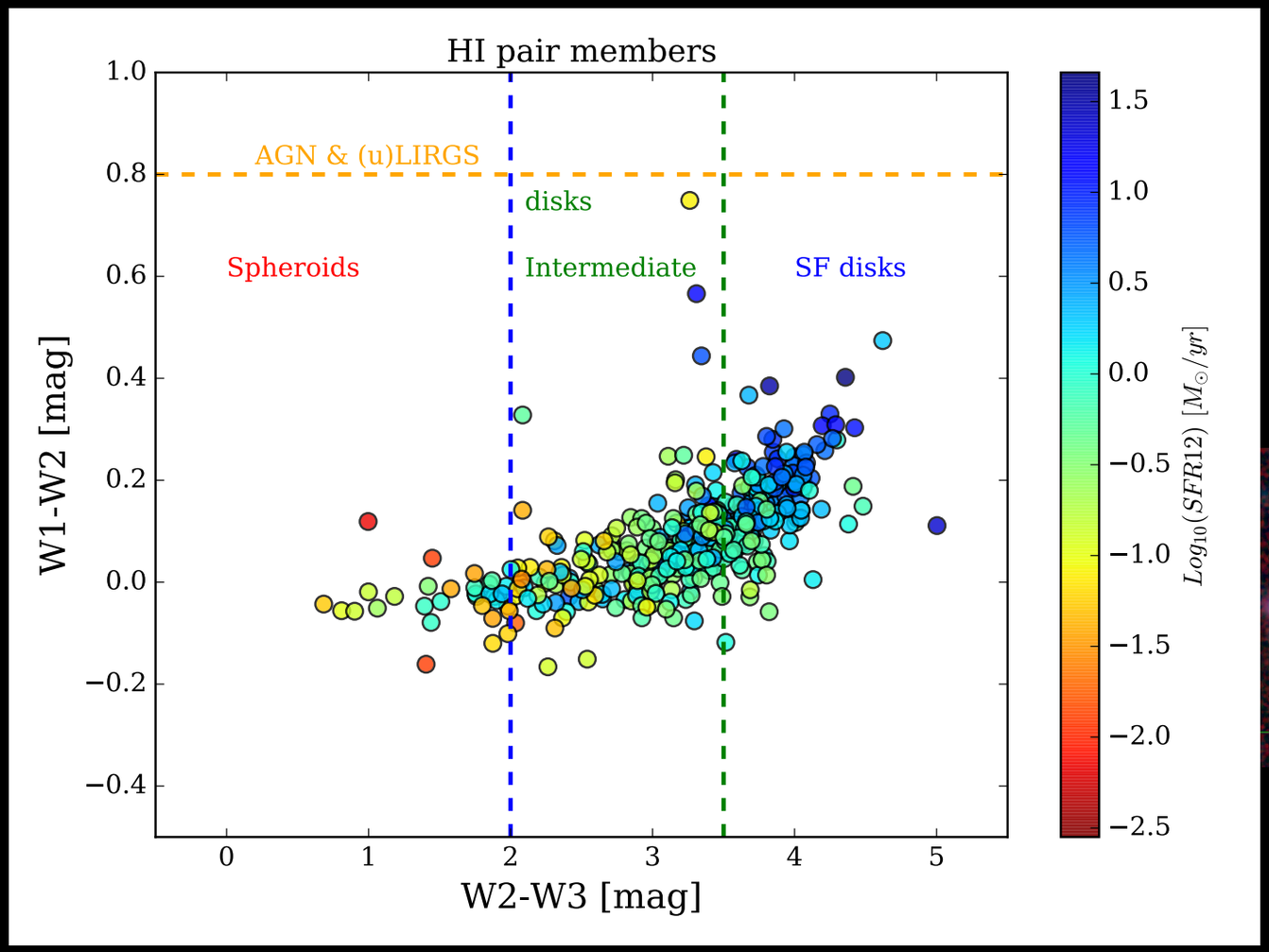
SFR, M★, & MHI

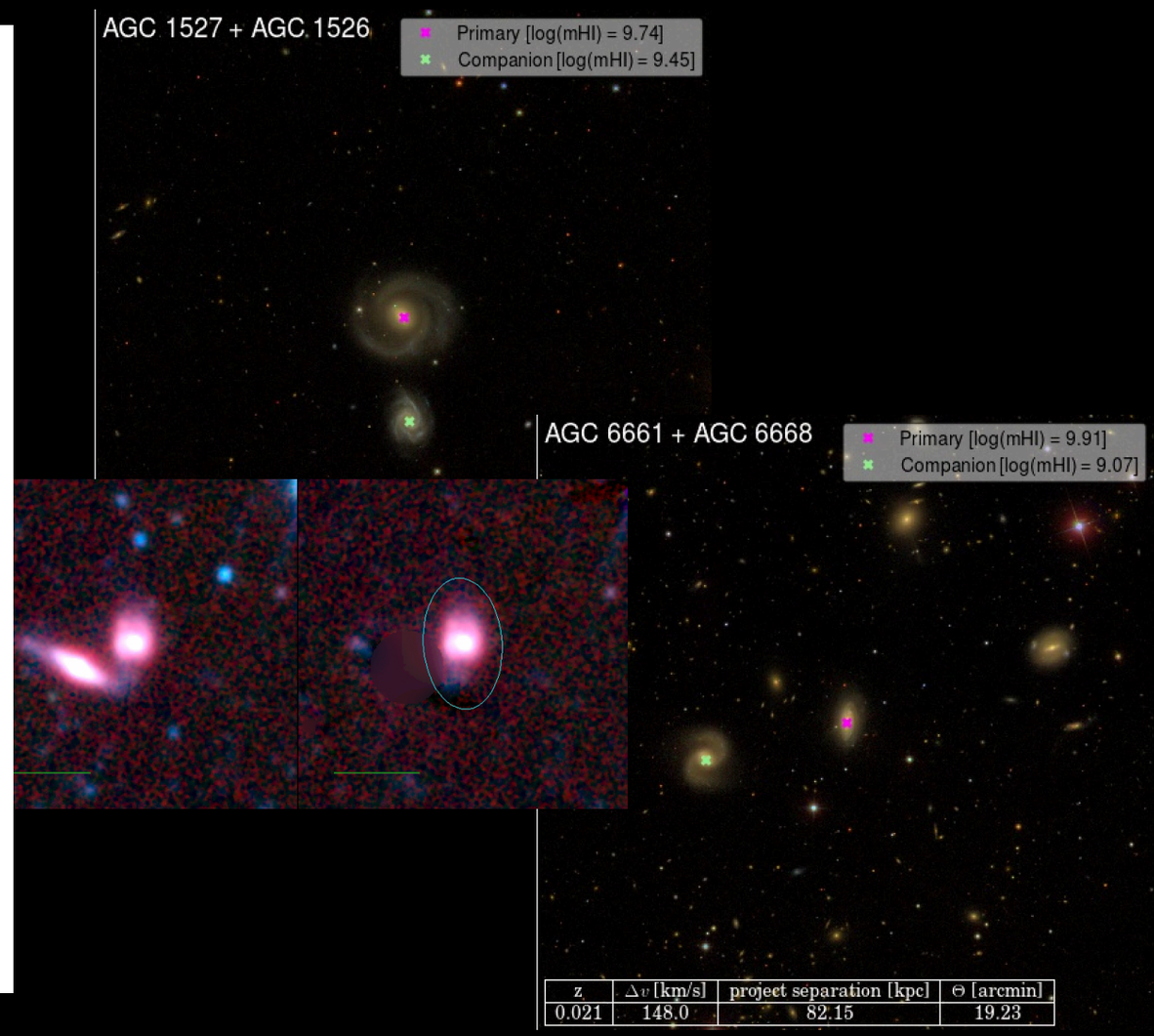




Parkash et al., 2018

Data & Sample Selection

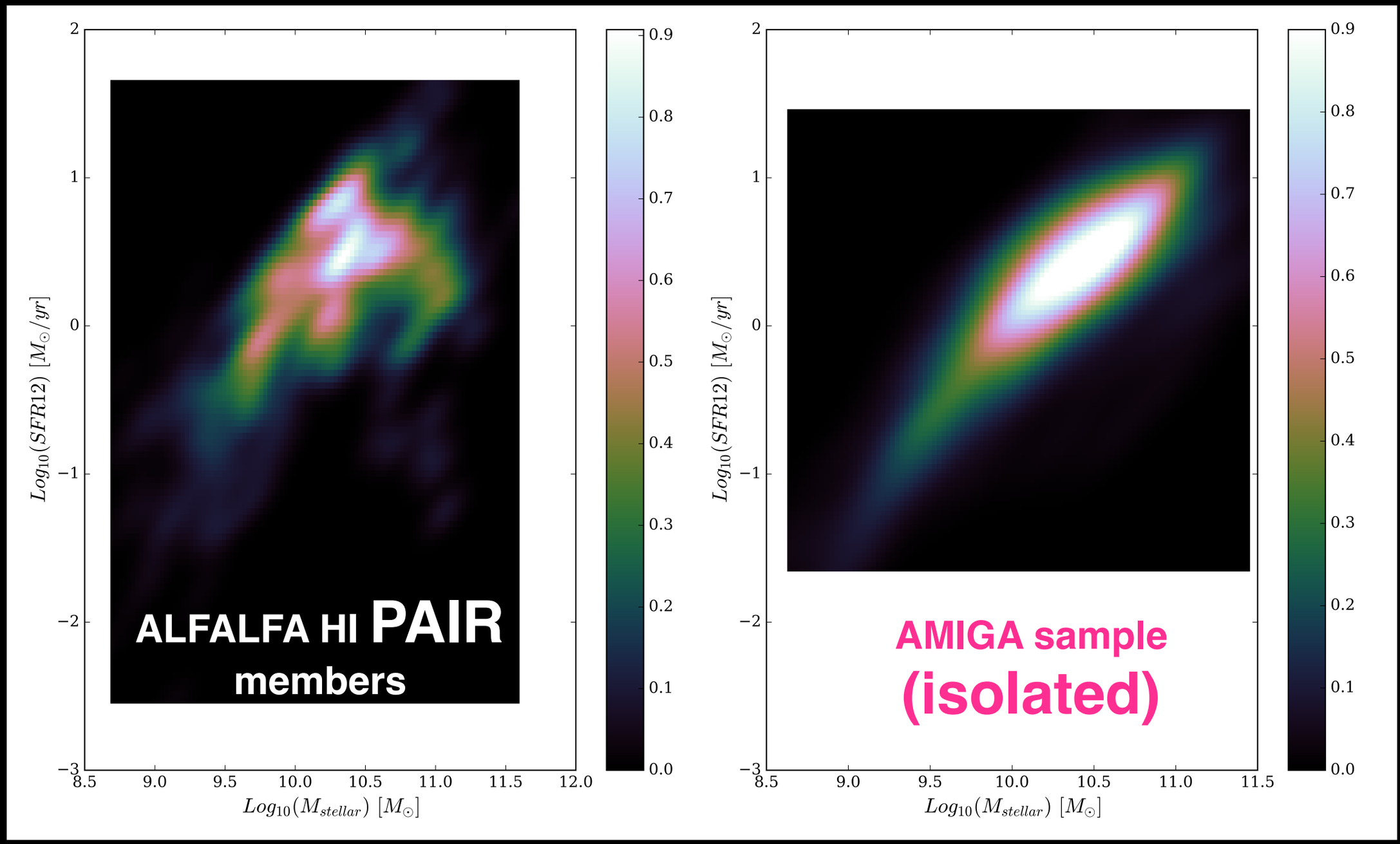




Catalogue	Dataset	Δr [kpc]	Δv [km s^{-1}]	$M_{\rm HI}$ [$M\odot$]	sample size
HI pair members	ALFALFA	< 100	<1000	> 10^9	448
AMIGA sample	AMIGA	-	-	>10^9	218
Isolated HI galaxies	ALFALFA	> 200	> 2000	> 10^9	in progress

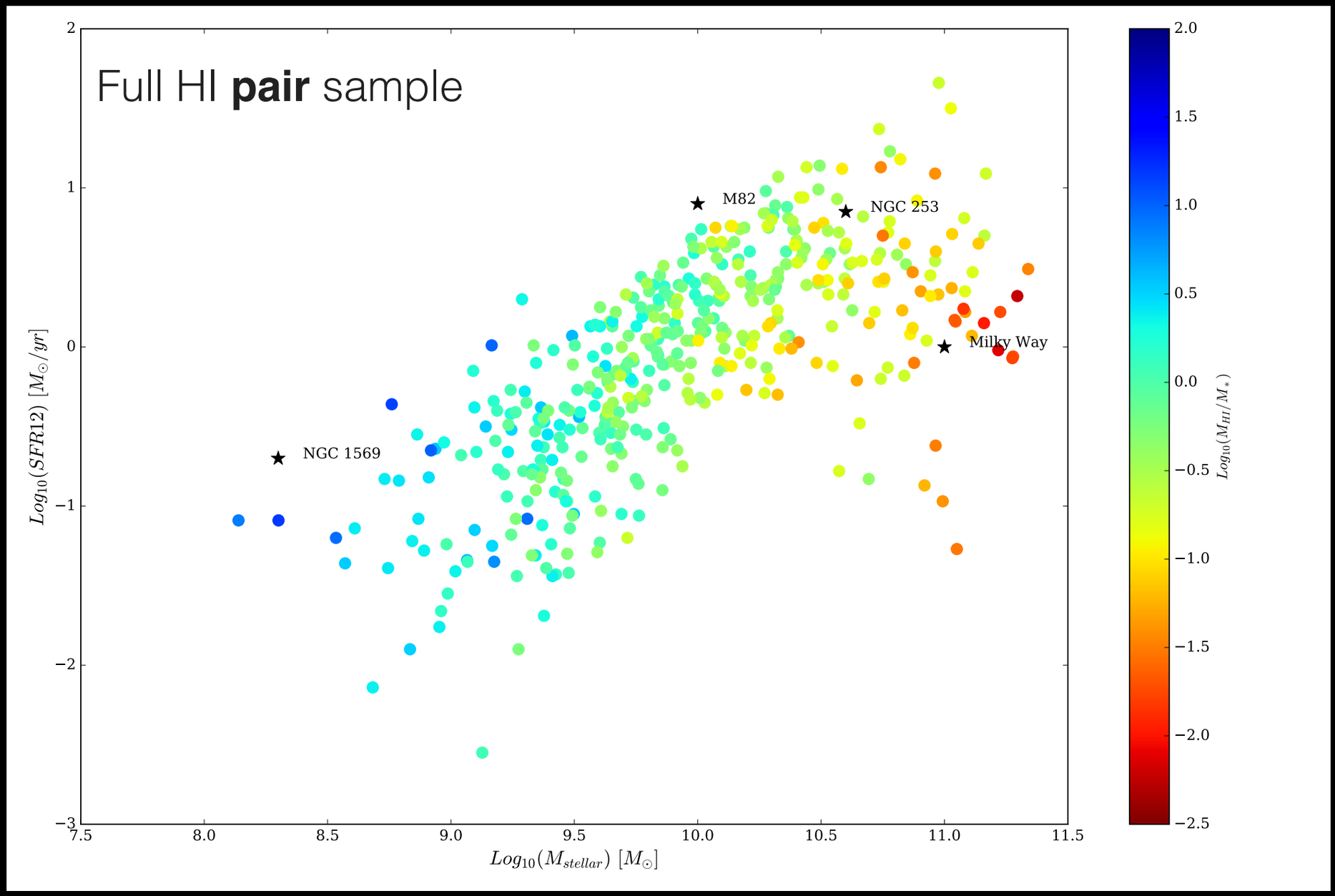
Preliminary results
*environment

SFR



M★

Preliminary results
*gas fraction log(MHI/M★)

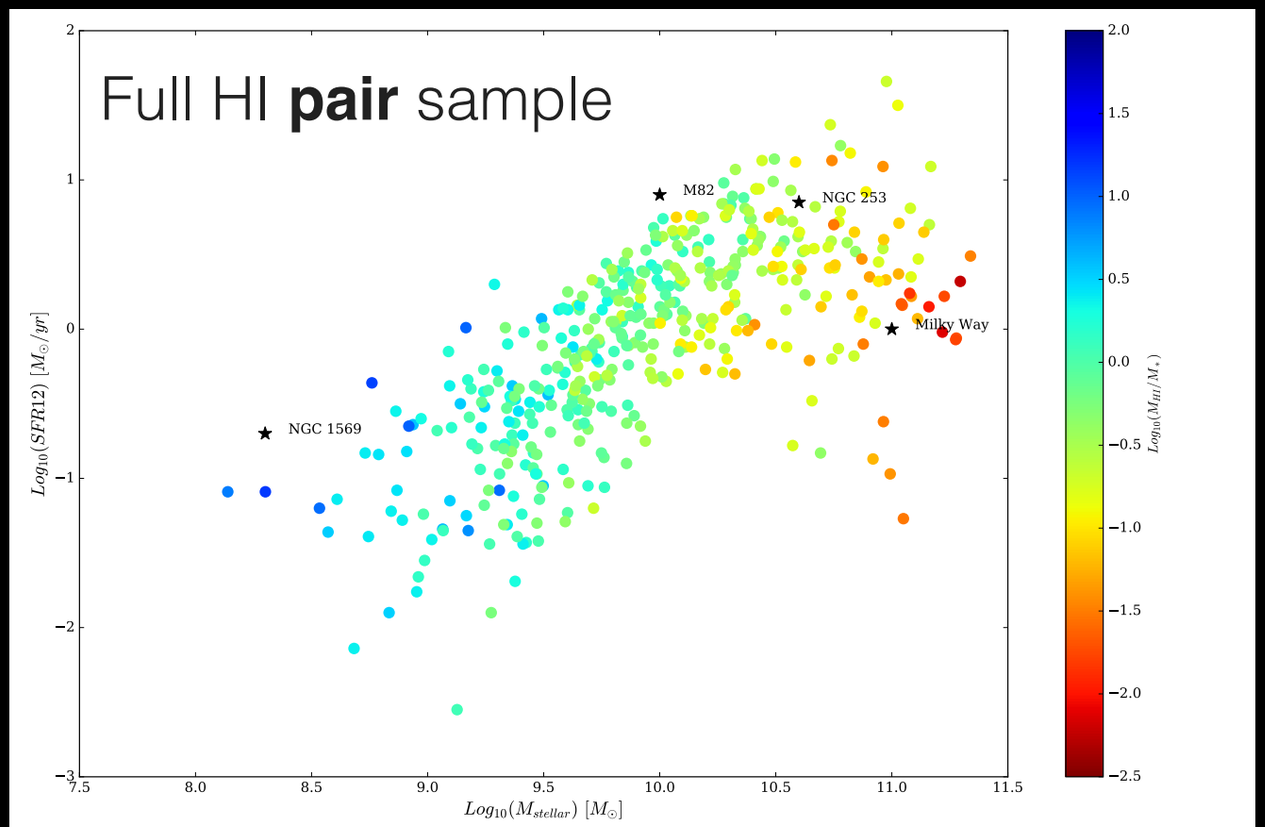


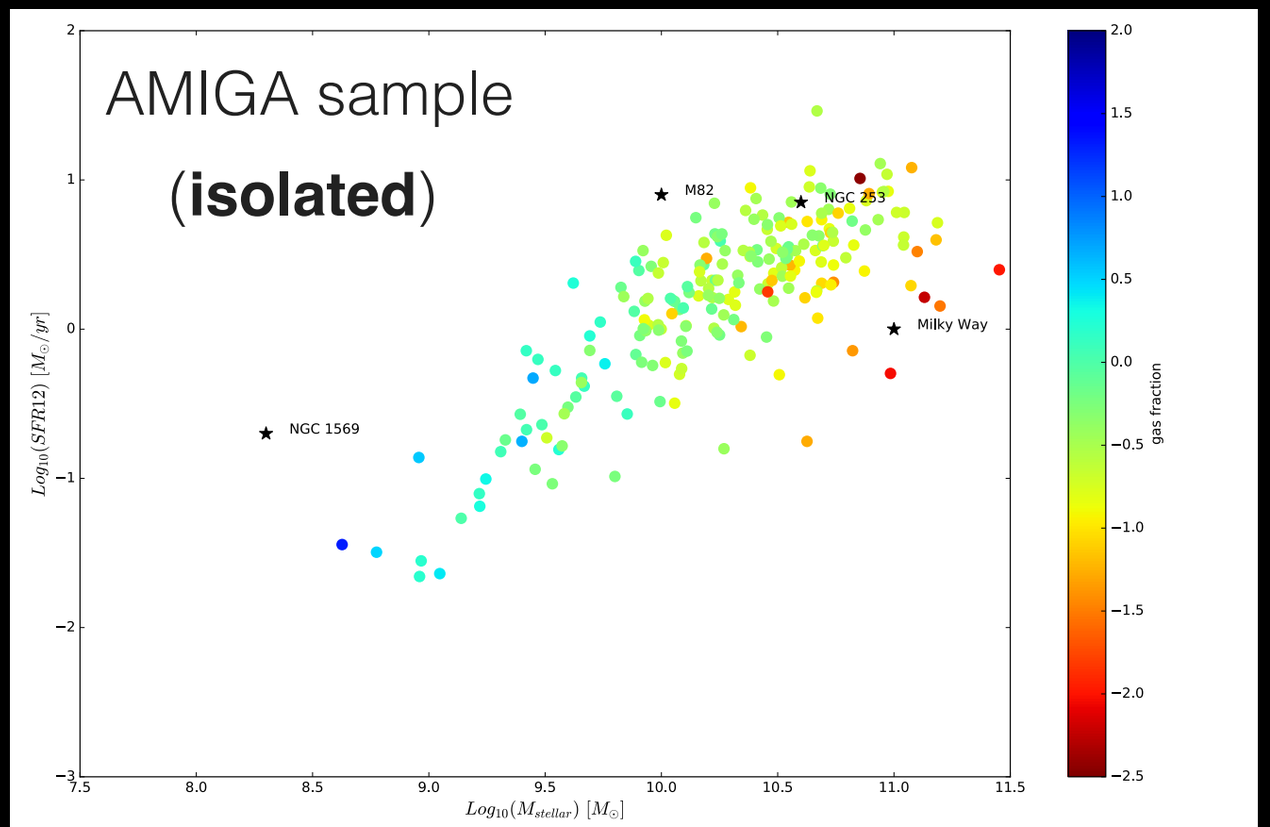
SFR

gas fraction

M★

Preliminary results
*gas fraction log(MHI/M★)

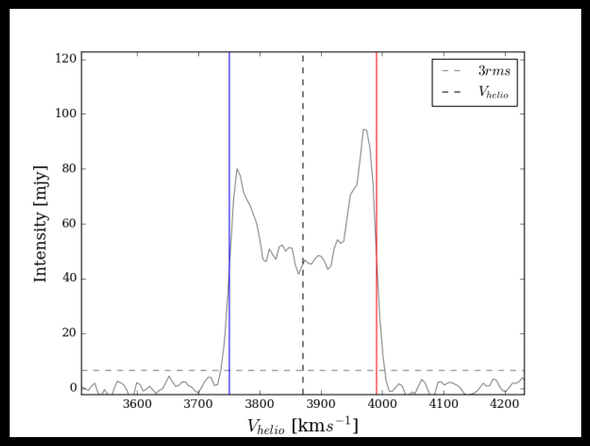




Quenching correlates with a depletion in gas fraction in both samples…

Papers 1,2,3 = PHD

- Paper 1: Enhanced HI profile asymmetries in close galaxy pairs (Bok et al., 2018 under review)



- Paper 2: This work (Bok et al., 2018 in prep)
- Paper 3: HI profile asymmetries on the SFR-M* (++)