

# DIVERSE QUENCHING HISTORIES ACROSS THE GREEN VALLEY AND THE ROLE OF AGN FEEDBACK

Becky Smethurst  
Chris Lintott, Brooke Simmons  
& Galaxy Zoo Team

#51

Smethurst et al. (2015) MNRAS, 450, 435

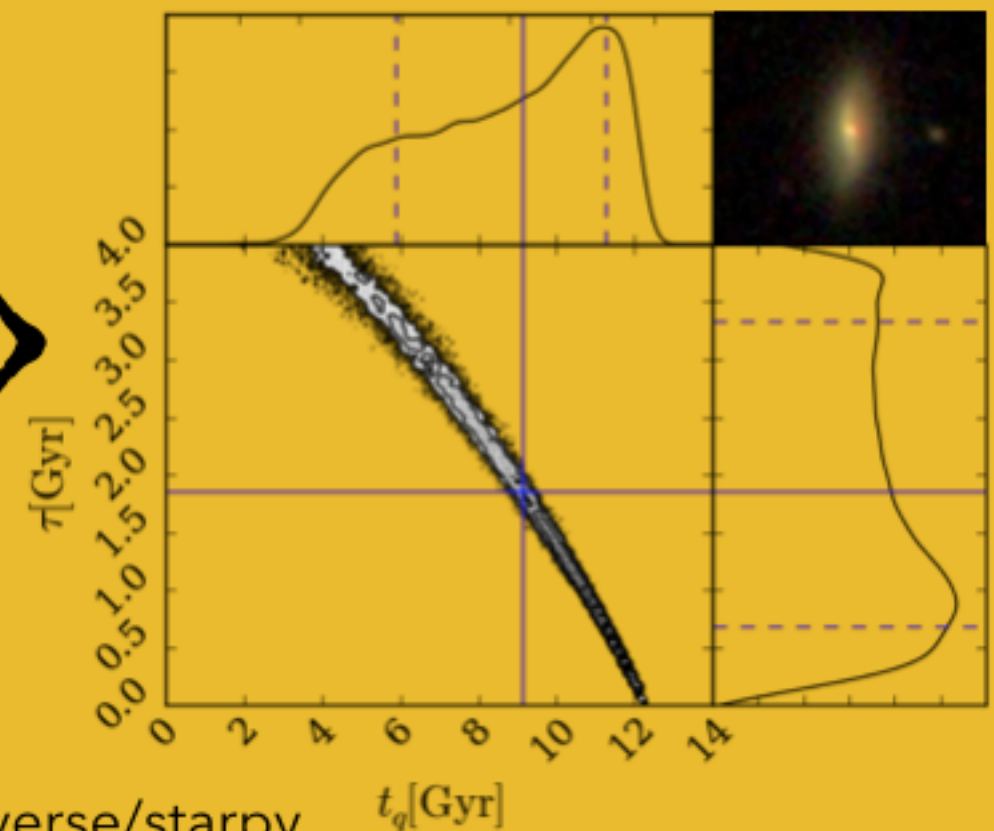
**STARPY - DETERMINES PROBABILITY DISTRIBUTION IN 2D PARAMETER SPACE FOR A SINGLE GALAXY**

DATA =  
OBSERVED COLOURS

$P(\text{MODEL} \mid \text{DATA}) =$   
 $P(\text{DATA} \mid \text{MODEL}) \times$   
 $P(\text{MODEL})$

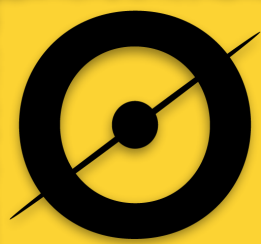
MODEL =  
PREDICTED COLOURS

**MCMC**  
**FINDS SFH**  
**PROBABILITY**  
**DISTRIBUTION**



Open Source: [www.github.com/zooniverse/starpy](http://www.github.com/zooniverse/starpy)

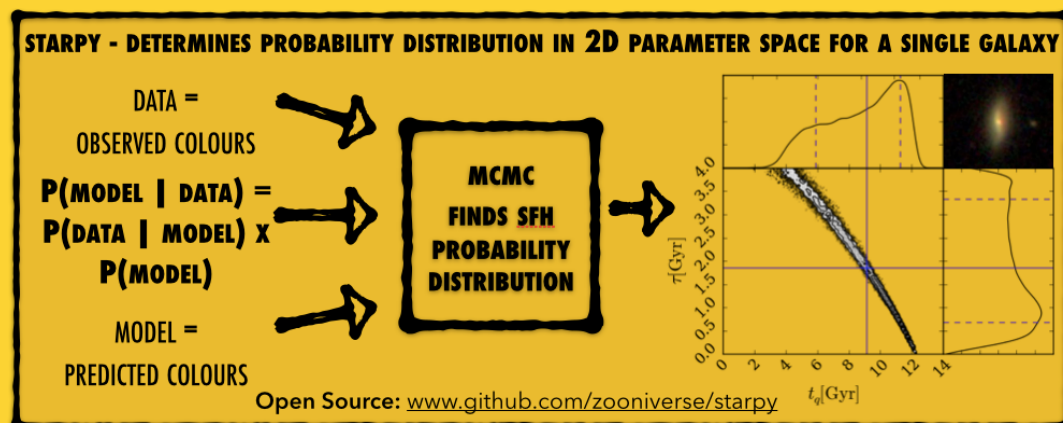
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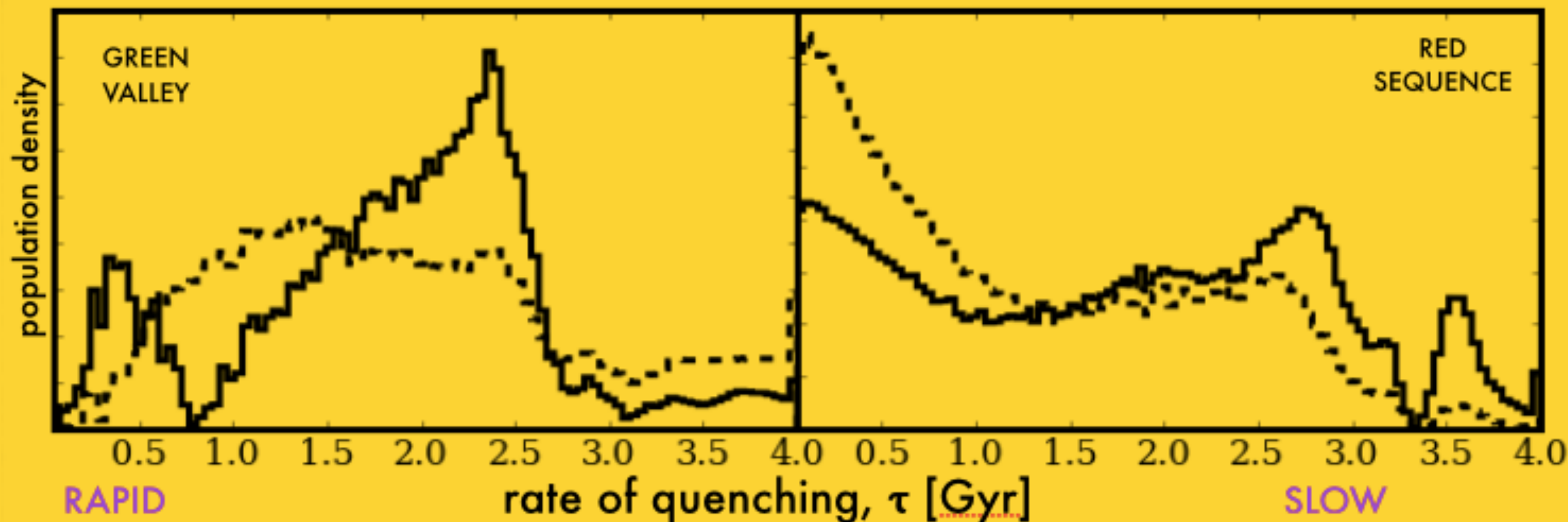
#51



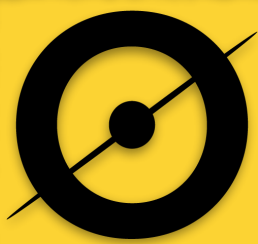
THE GREEN VALLEY IS NOT A "RED HERRING"

Smethurst et al. (2015) MNRAS, 450, 435

— disk  
- - - elliptical



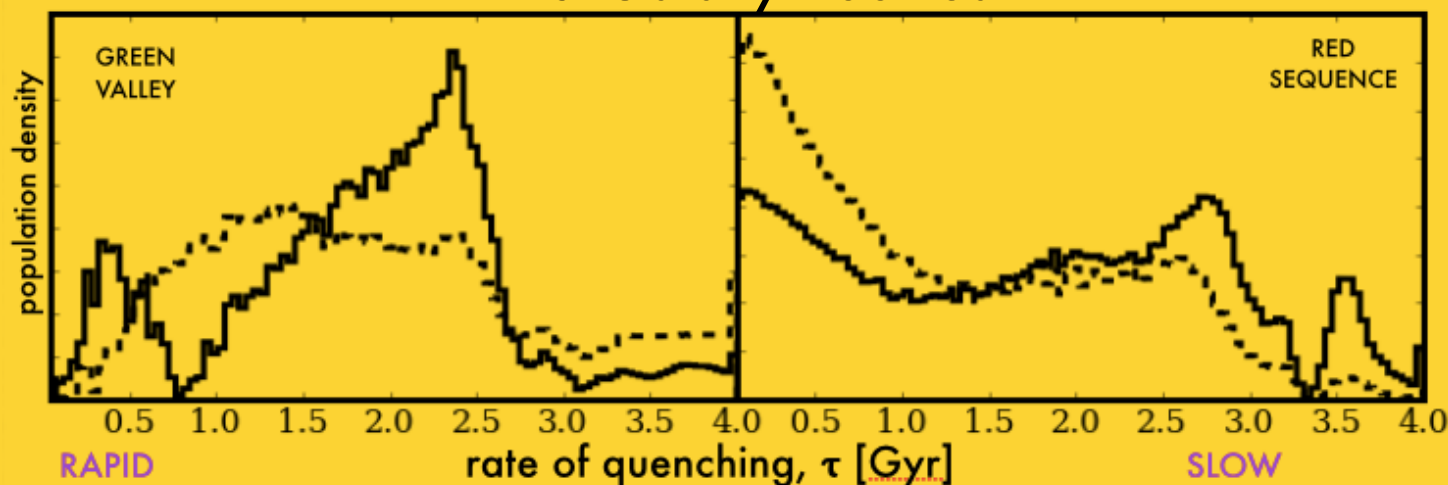
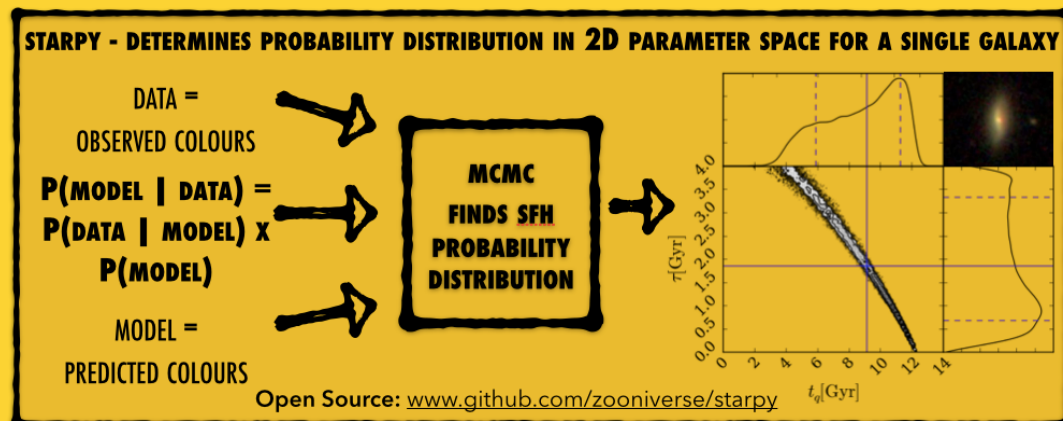




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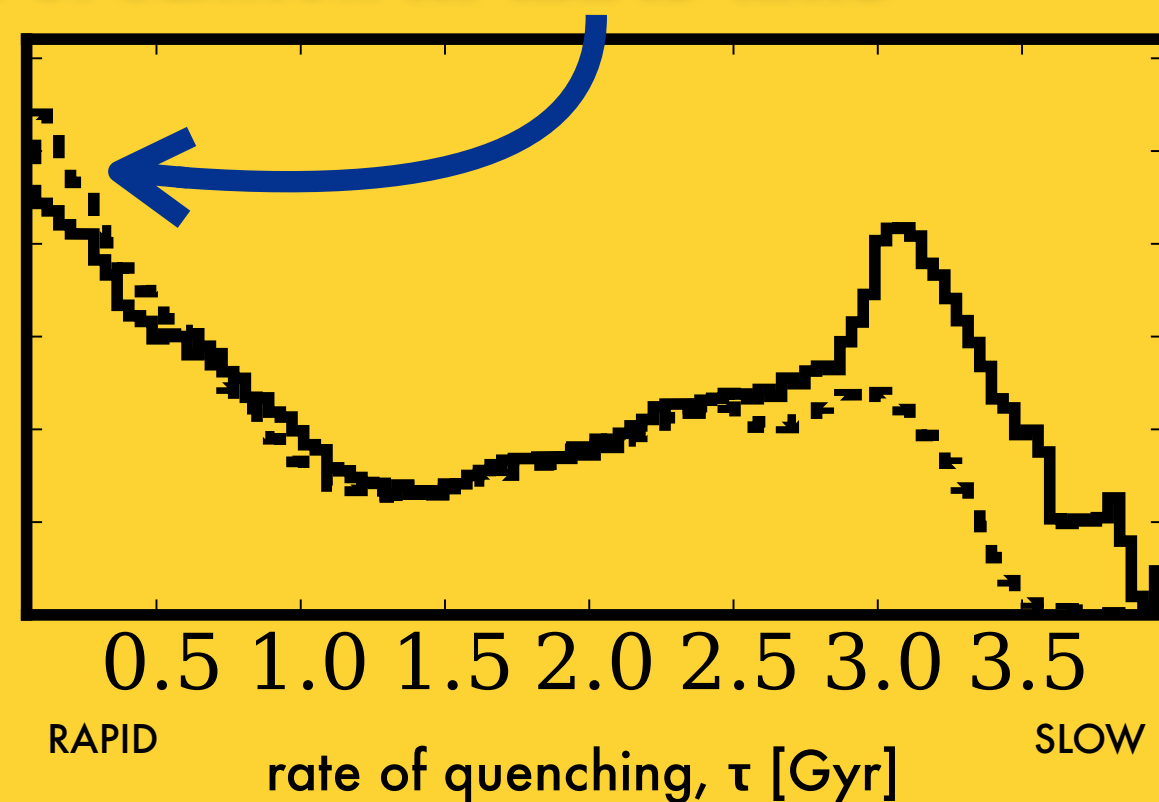
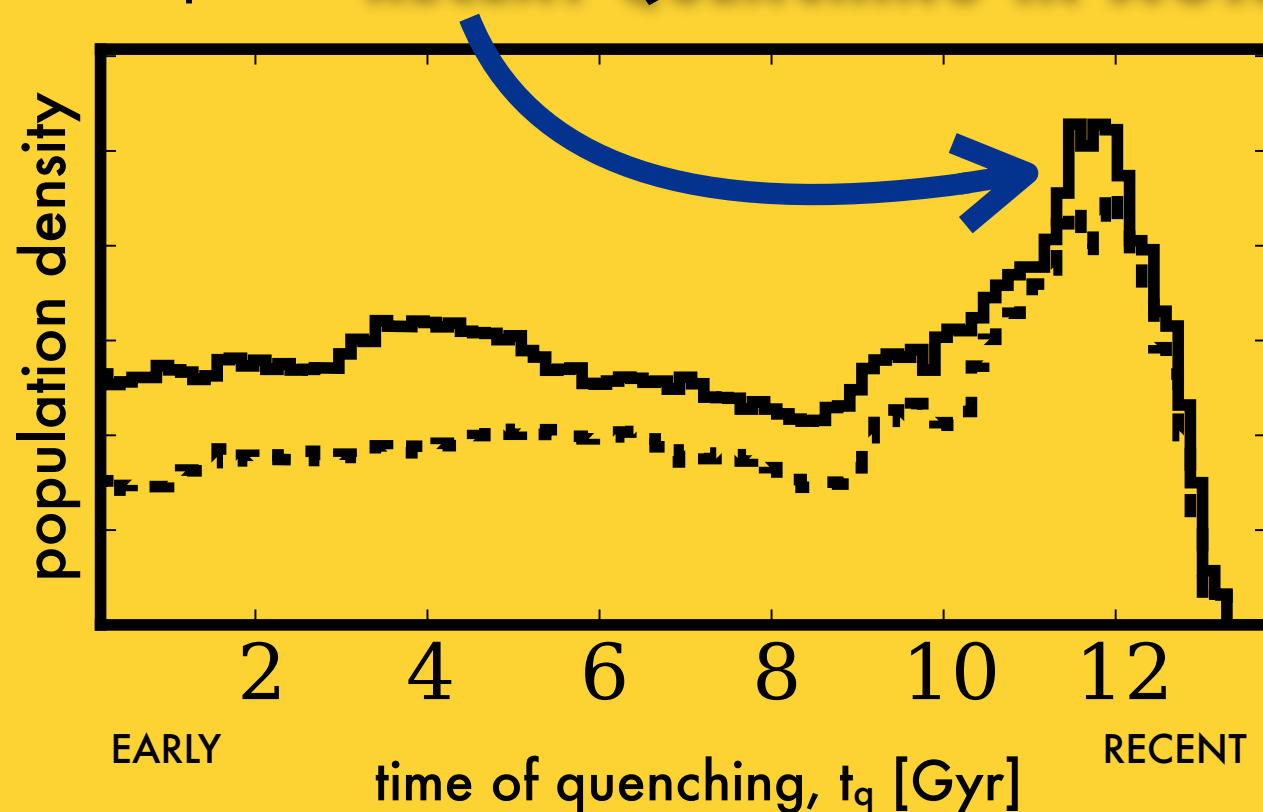
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— disk  
- - - elliptical

**RECENT QUENCHING IN AGN POPULATION AT RAPID RATE**



ARE AGN THE **CAUSE** OR **CONSEQUENCE** OF THIS QUENCHING?

Smethurst et al. (2016), in review