Host

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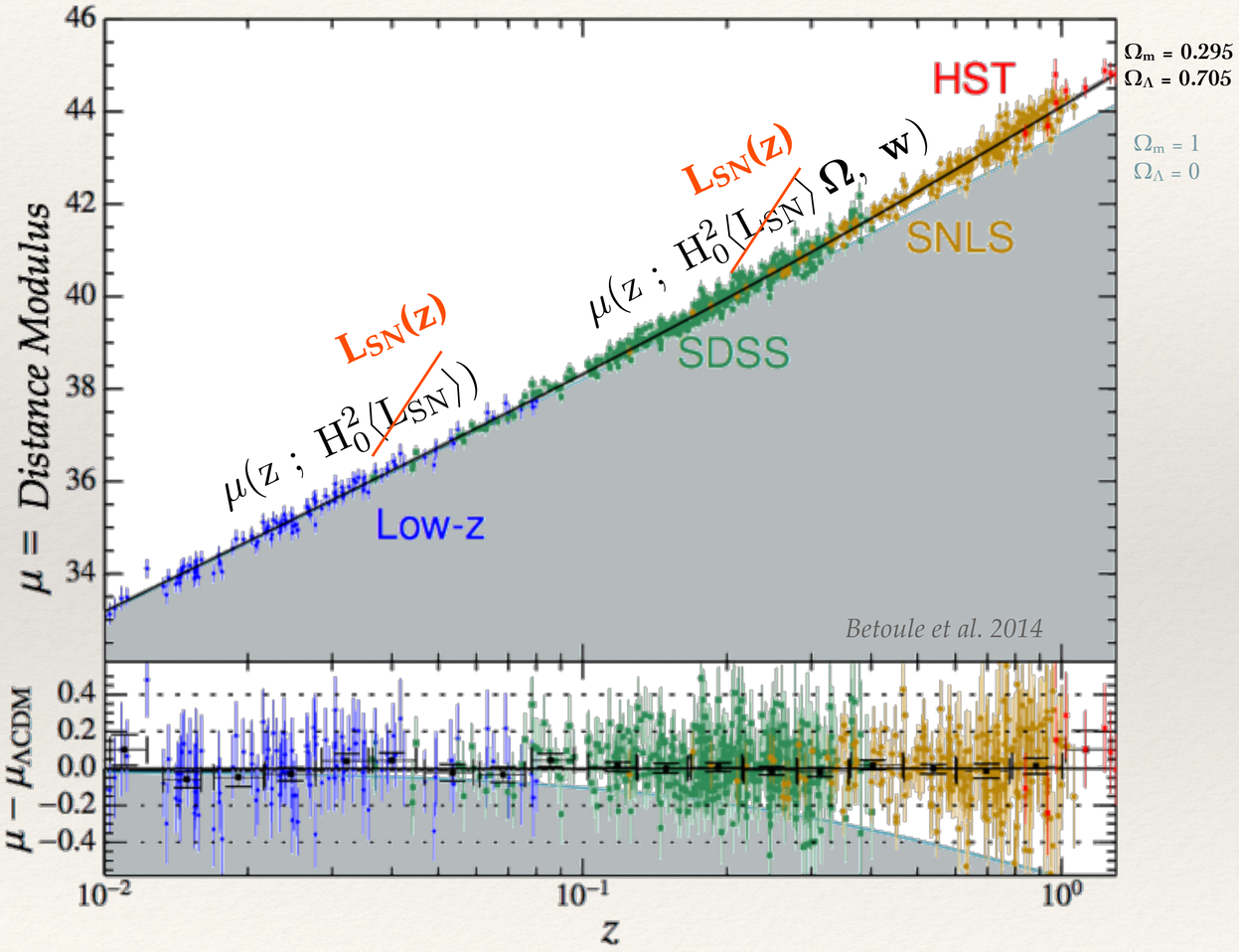
This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement n°759194 - USNAC)

Type Ia Supernovae | **Redshift drift**



Is the average standardised SN luminosity constant ?

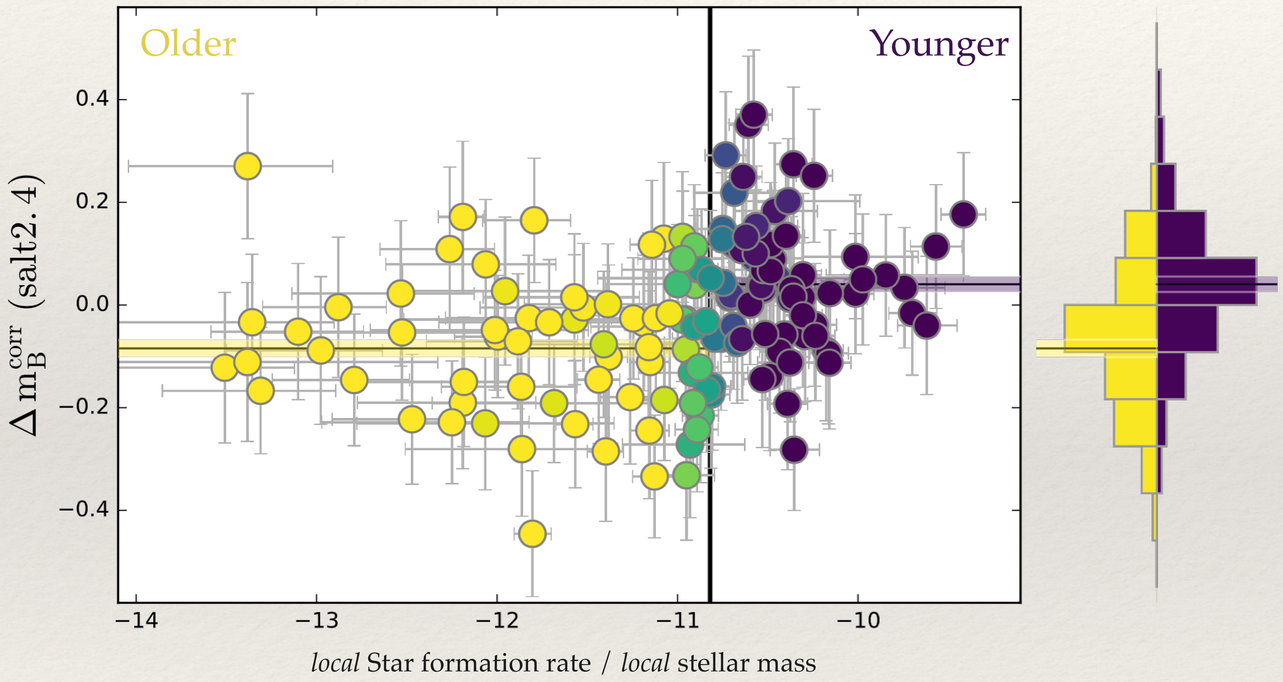
Between sample | as a function of redshift

SNeIa Astrophysical dependencies

Low-Z | SNf

Rigault et al. 2018

non-zero at ~6σ level | $\Delta_Y = 0.16 \pm 0.03$

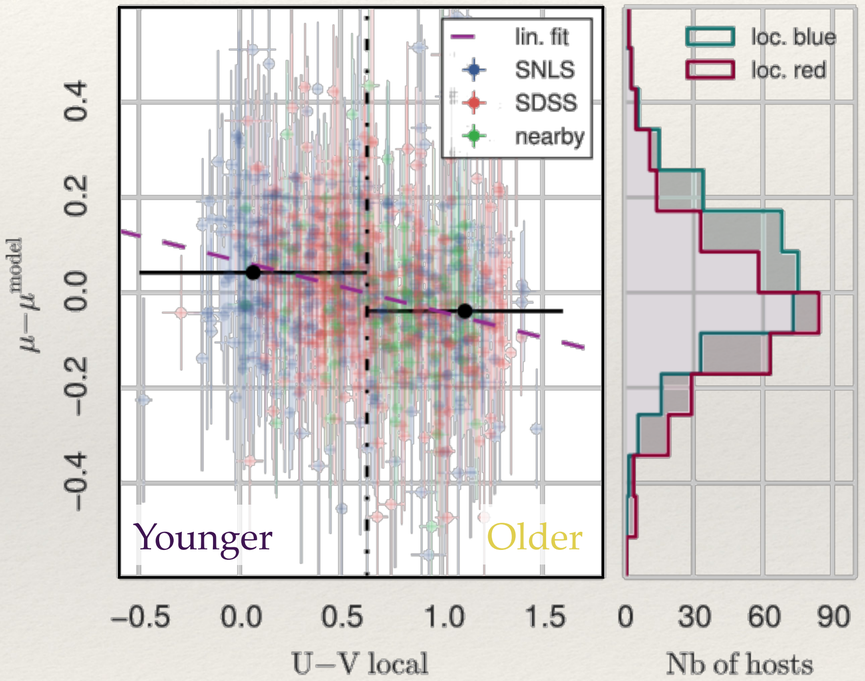


Fraction of young star at the SN location

All Z | SDSS & SNLS & Nearby

Roman et al. 2018

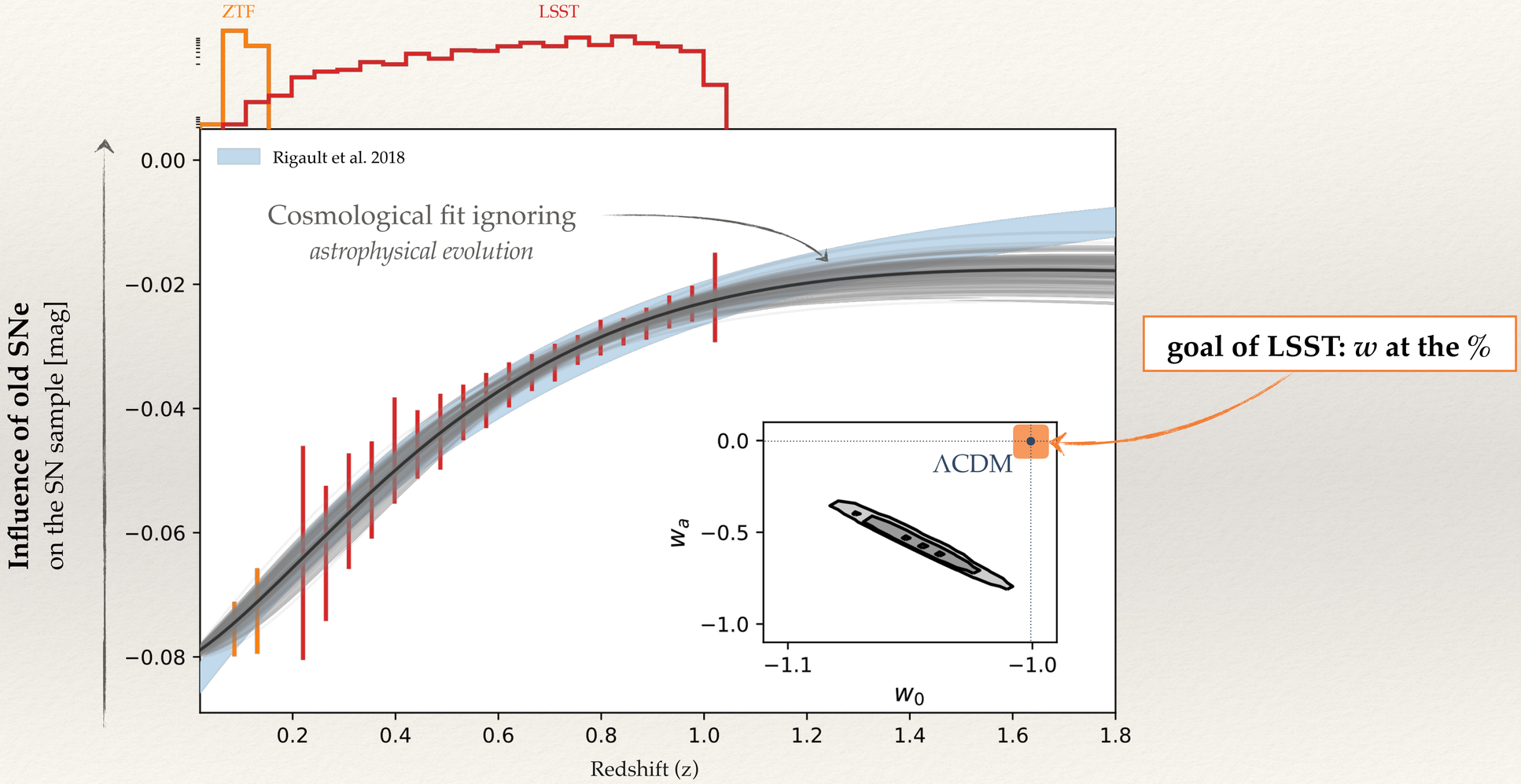
non-zero at ~7σ level | $\Delta_Y = 0.09 \pm 0.02$



Fraction of young star at the SN location

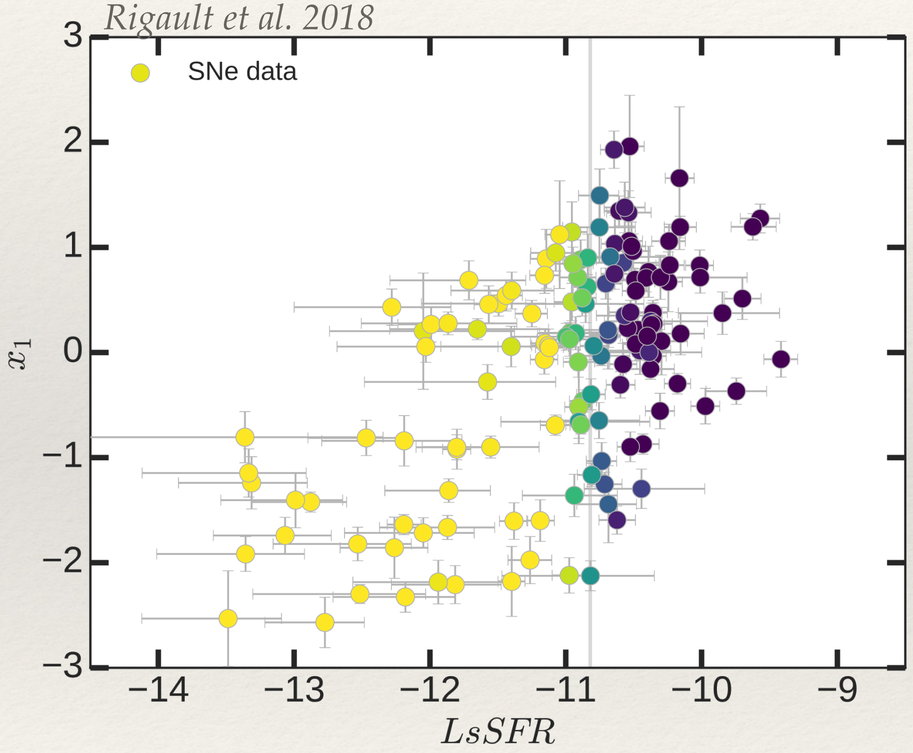
Redshift Drift vs. Exotic Dark Energy

Rigault et al. 2018



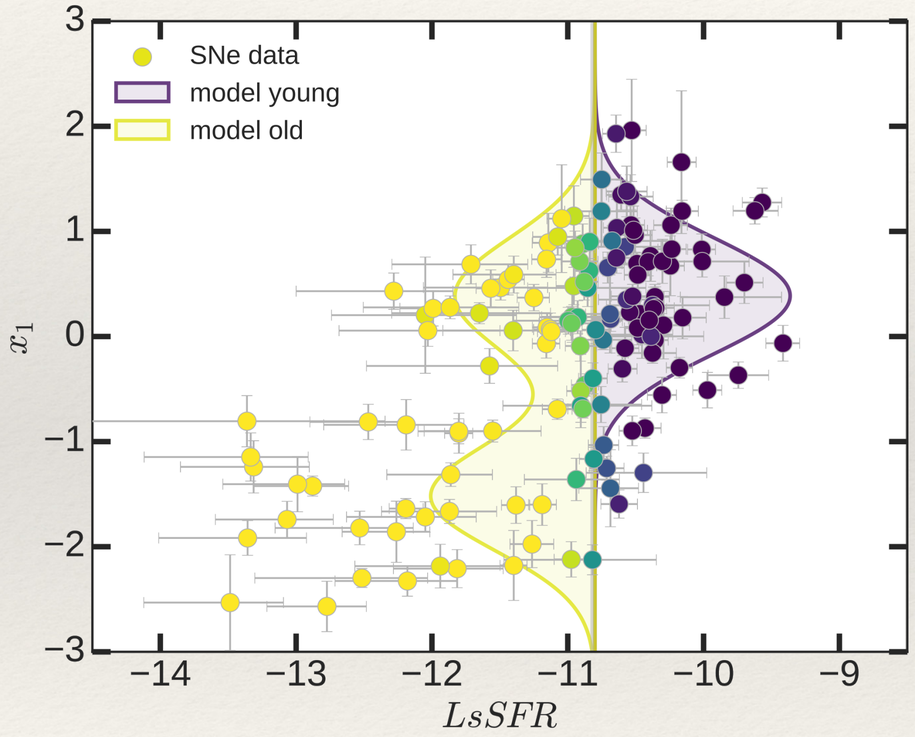
Testing Redshift Drift model

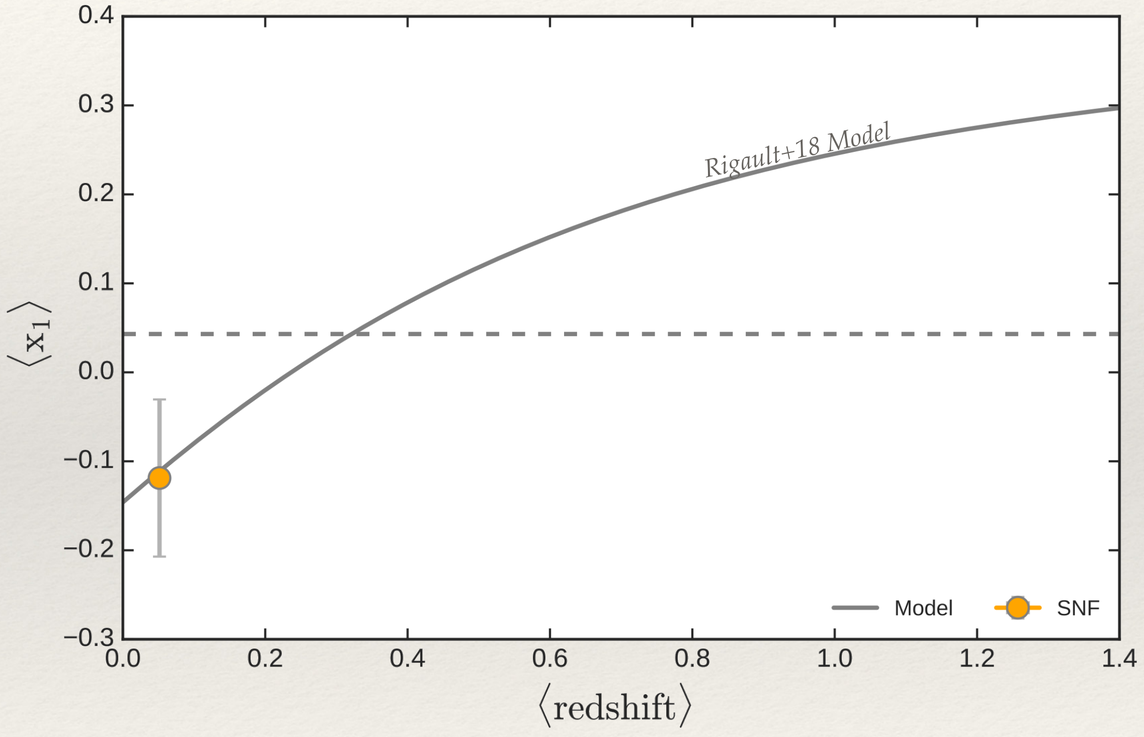
Rigault et al. 2018



Testing Redshift Drift model

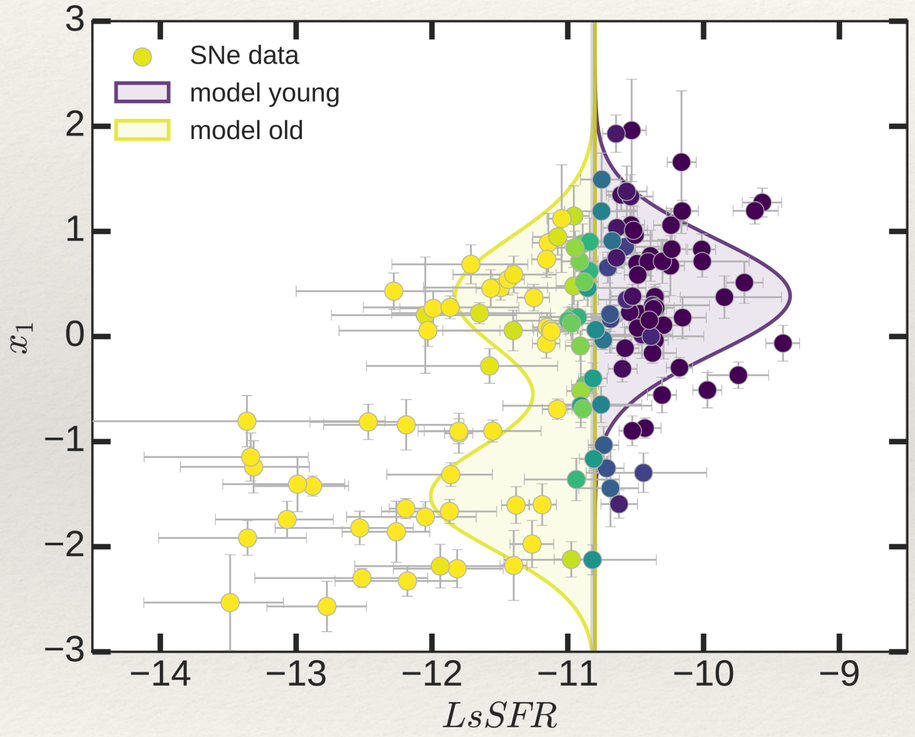
Nicolas et al. in prep

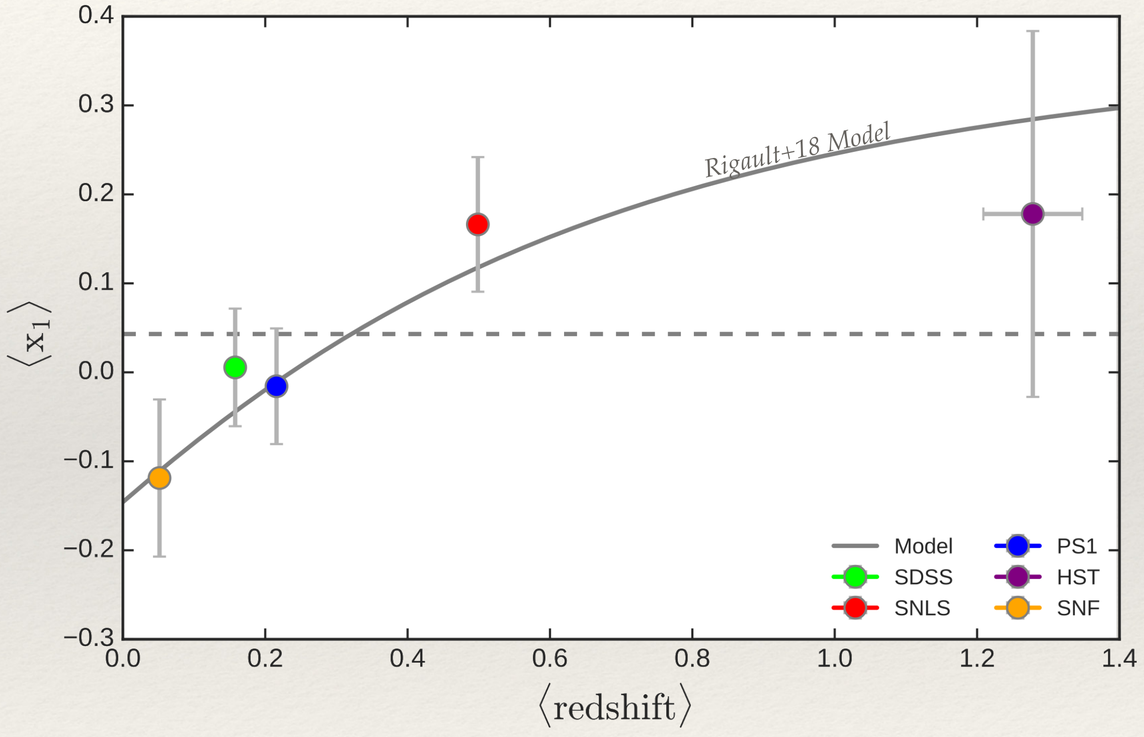




Testing Redshift Drift model

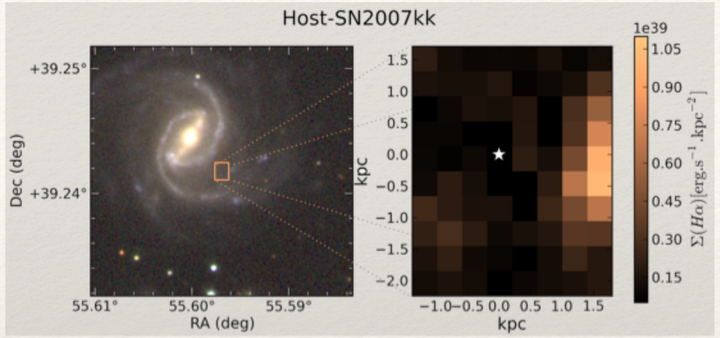
Nicolas et al. in prep





How to measure environment at high-z ?

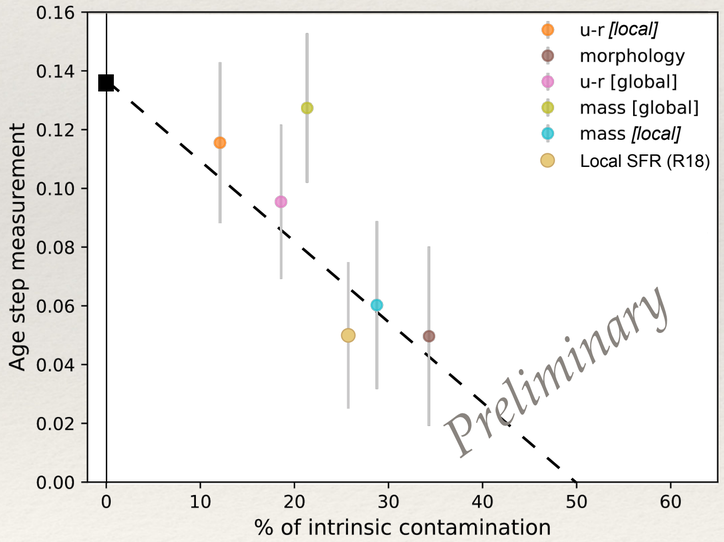
Briday et al. in prep



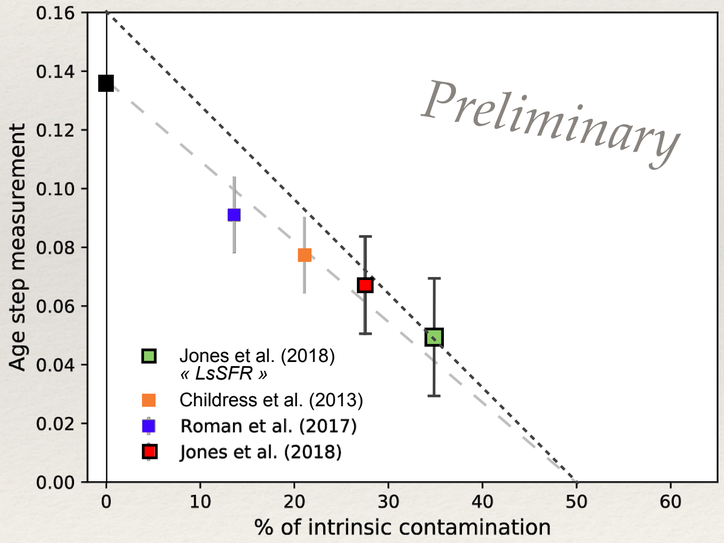
— On SNf data —

Misclassification = Tracer Inaccuracy

e.g. ***Spiral → Young Progenitor***



— On Public data —



Host

Dark Energy (w_0,w_a)

Hubble Constant

Peculiar Velocities

USNAC ERC group is actively working on it.

erc | USNAC