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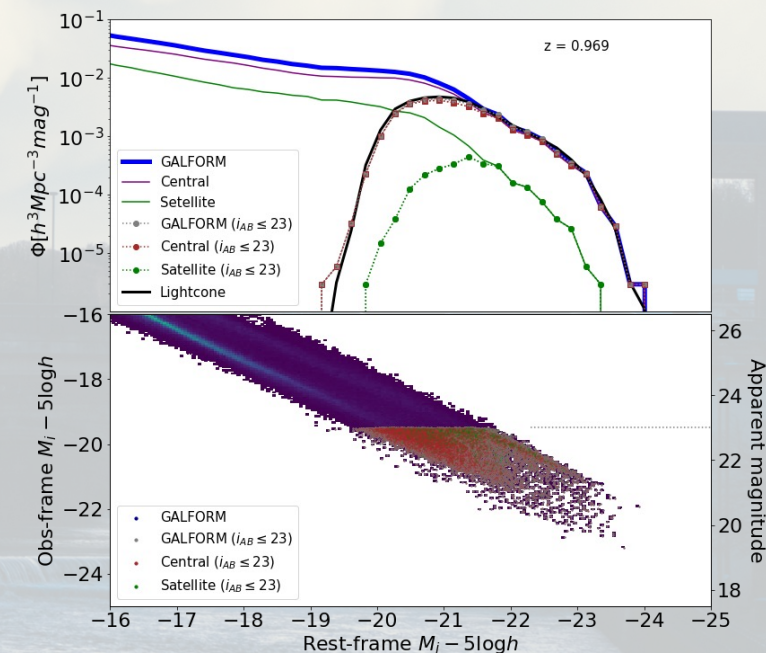
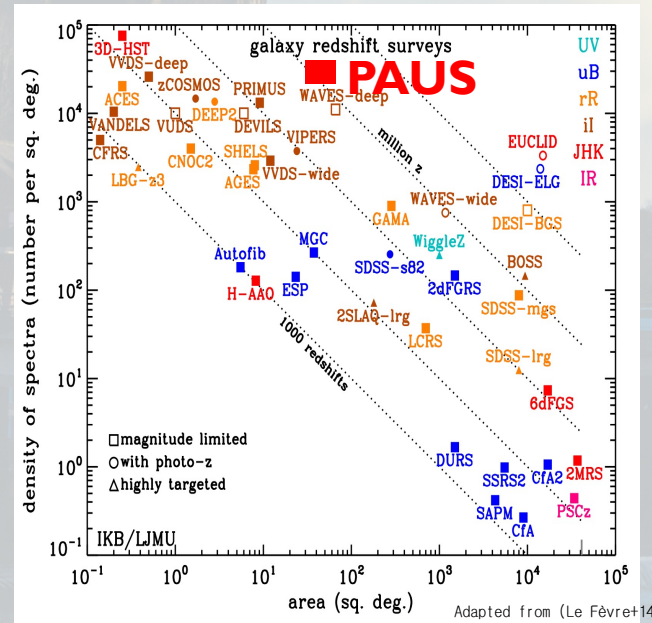
Institute for Computational Cosmology  
Durham University, United Kingdom



## Poster Title: The Evolution of the Luminosity function over $\sim 7.5$ Gyr of Cosmic History

### Key Points:

1. The luminosity function from one of the densest galaxy redshift surveys ( $\sim 1.8$  million objects covering  $\sim 50 \text{ deg}^2$ )
2. The faint-end of the luminosity function contains useful information about galaxy population properties.
3. No evolution of the  $i$ -band luminosity function from  $z = 1$  to  $z = 0$ .





# STAR CLUSTERS FORMING IN A LOW-METALLICITY STARBURST – RAPID SELF-ENRICHMENT BY (VERY) MASSIVE STARS

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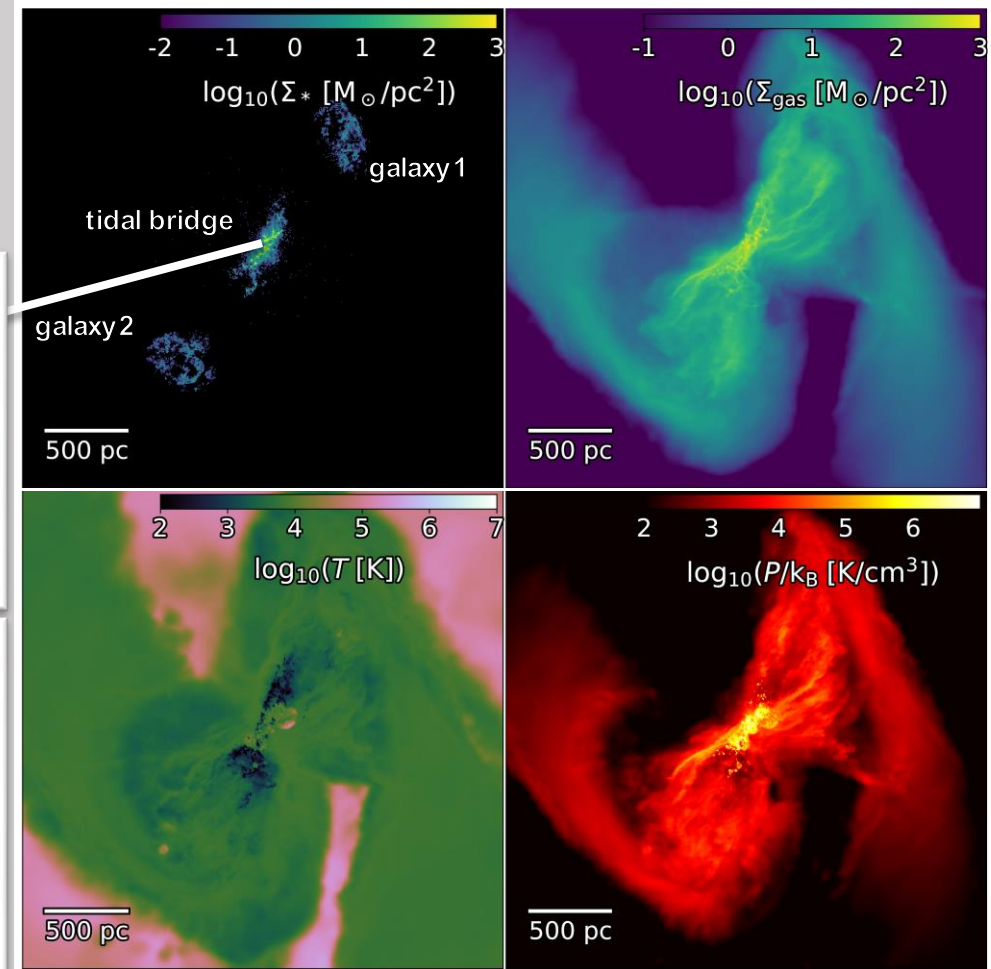
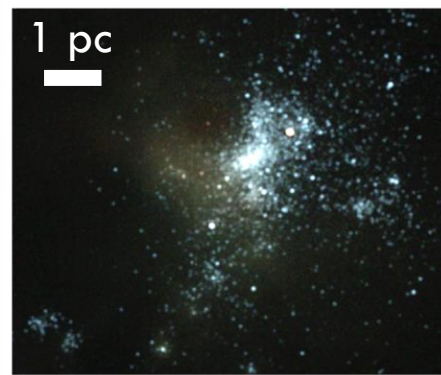


**Globular clusters** host stars with yet unexplained Na, O, Al, Mg and N variations, identified as **multiple populations**

Using hydrodynamical dwarf-galaxy simulations with multiphase ISM and individual stars we test:

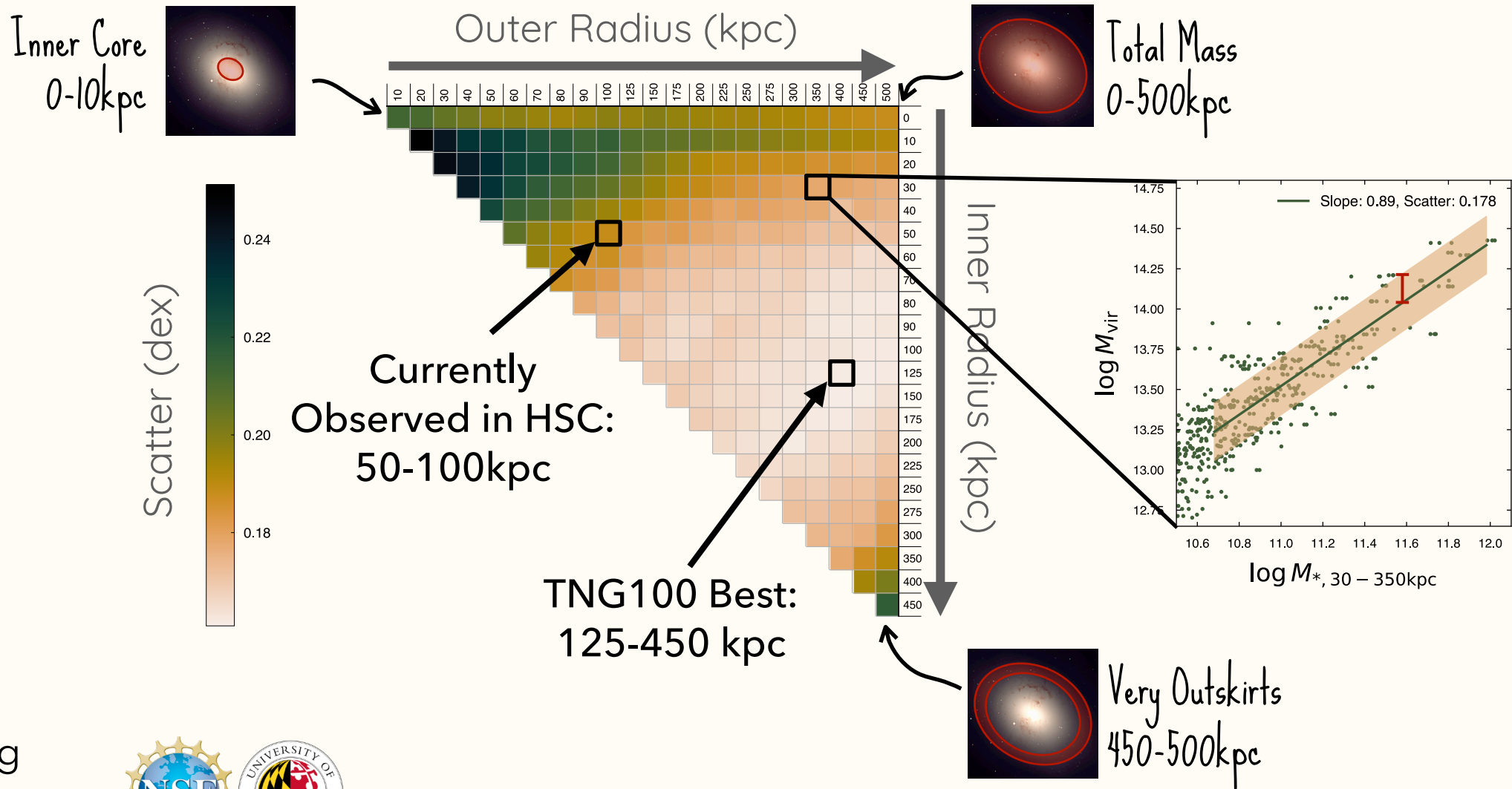
- Could **self-enrichment** in massive star clusters by stellar winds of **low-metallicity** massive and **very massive stars** be the source?

Paper submitted, in arXiv last Friday 🎉



# Finding the Optimal Definition of BCG Stellar Mass as a Tracer for Halo Mass

(In Mock Observed IllustrisTNG Galaxies)



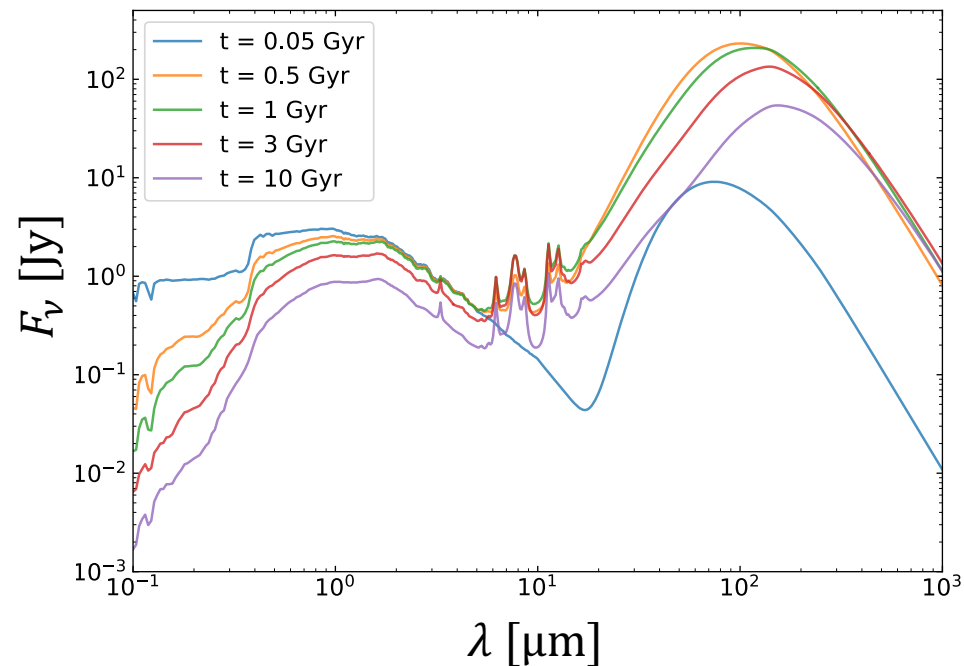
# Observational signatures of the dust size evolution in isolated galaxy simulations

Kosei Matsumoto

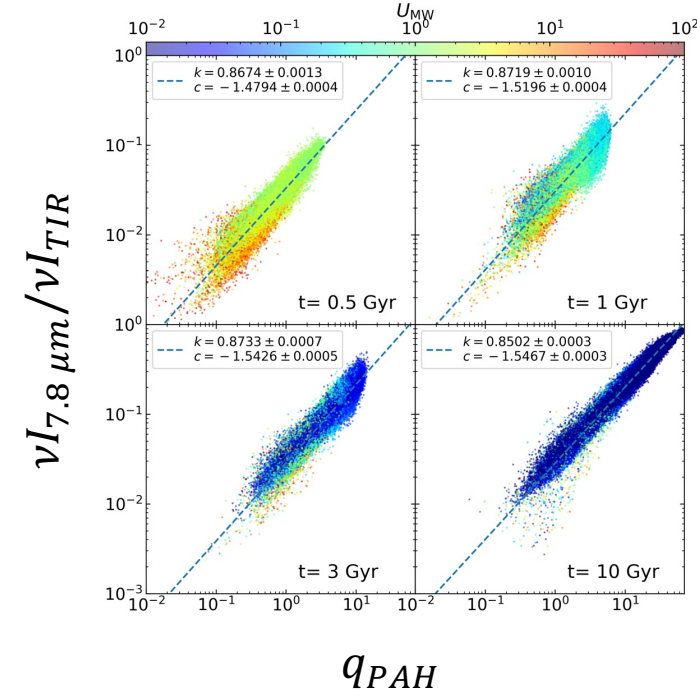
Red: PACS 160  $\mu\text{m}$   
Green: Herschel/PACS 70  $\mu\text{m}$   
Blue: Spitzer/IRAC 8  $\mu\text{m}$

Dust emission maps from Gadget4-Osaka + SKIRT simulations

## SED evolution



## Indicator of PAH mass fraction



**OU TAP**  
Osaka University Theoretical Astrophysics

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