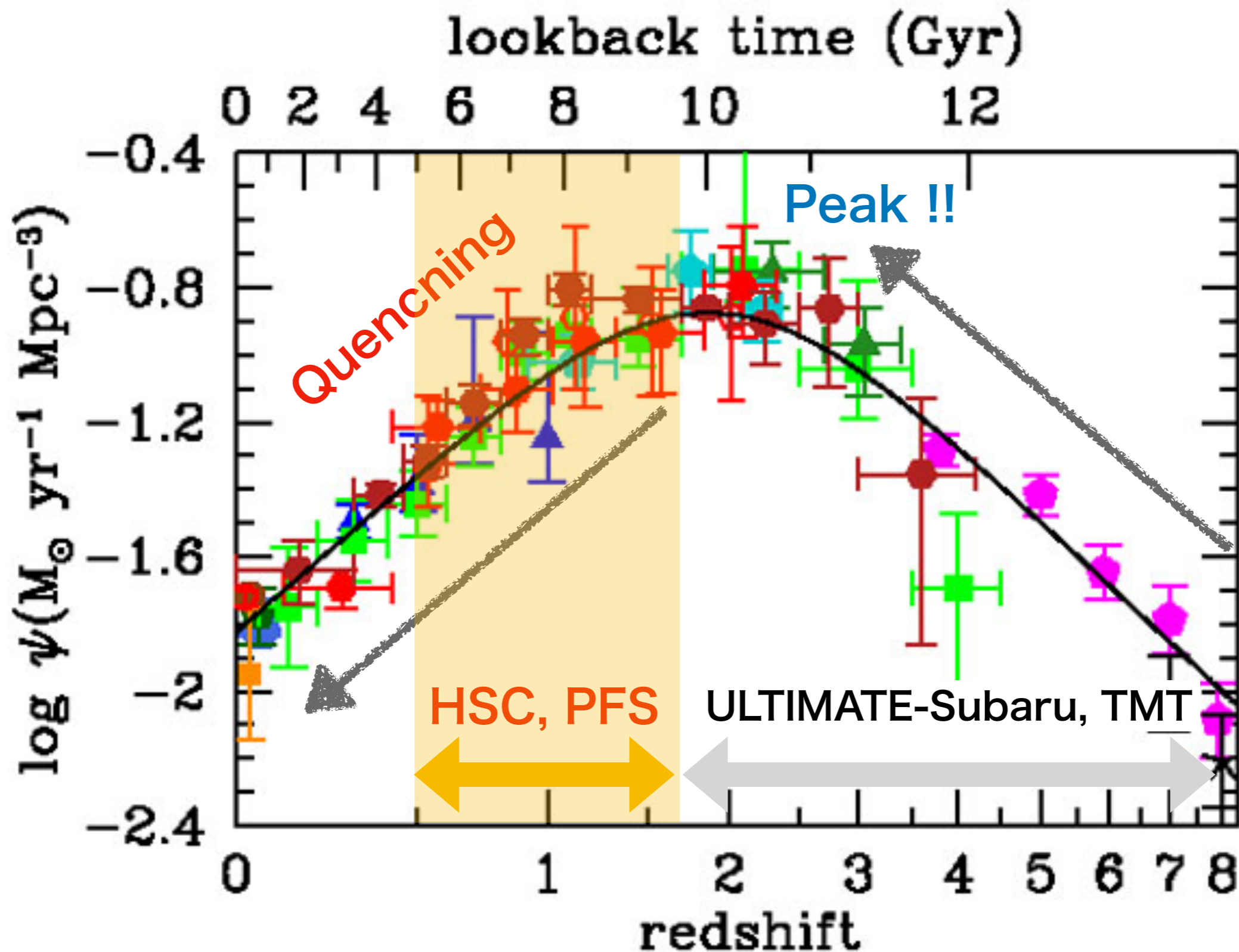


GPPU Progress Status Presentation (8/27/2020)

**Searching galaxy group/clusters
after cosmic noon
with Subaru hyper wide FOV imager**

**Naoaki Yamamoto
(D1, Astronomy institute)**

HSC & PFS : Quenching history since $z \sim 1.7$



Research plan during GPPU course

Search galaxy group/cluster candidates at $z \sim 0.84$

Investigate the properties of member galaxies which reside in our cluster candidates at $z \sim 0.84$

Extend our cluster survey beyond $z \sim 1$

- Combine “optical + near infrared” imaging data
- Carry out overdensity search

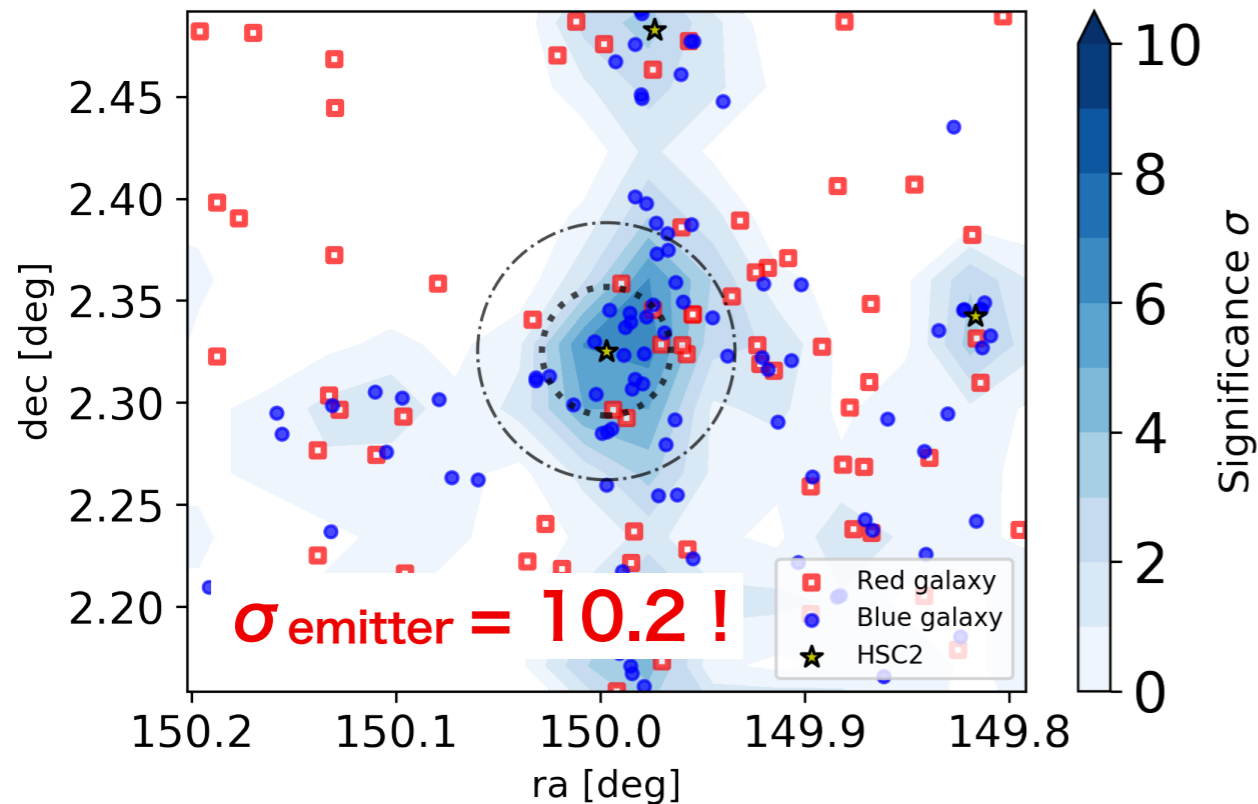
Estimate total mass (baryon+dark matter) of our candidates

Investigate the properties of member galaxies at all of redshift slices
Pilot spectroscopic follow-up observation

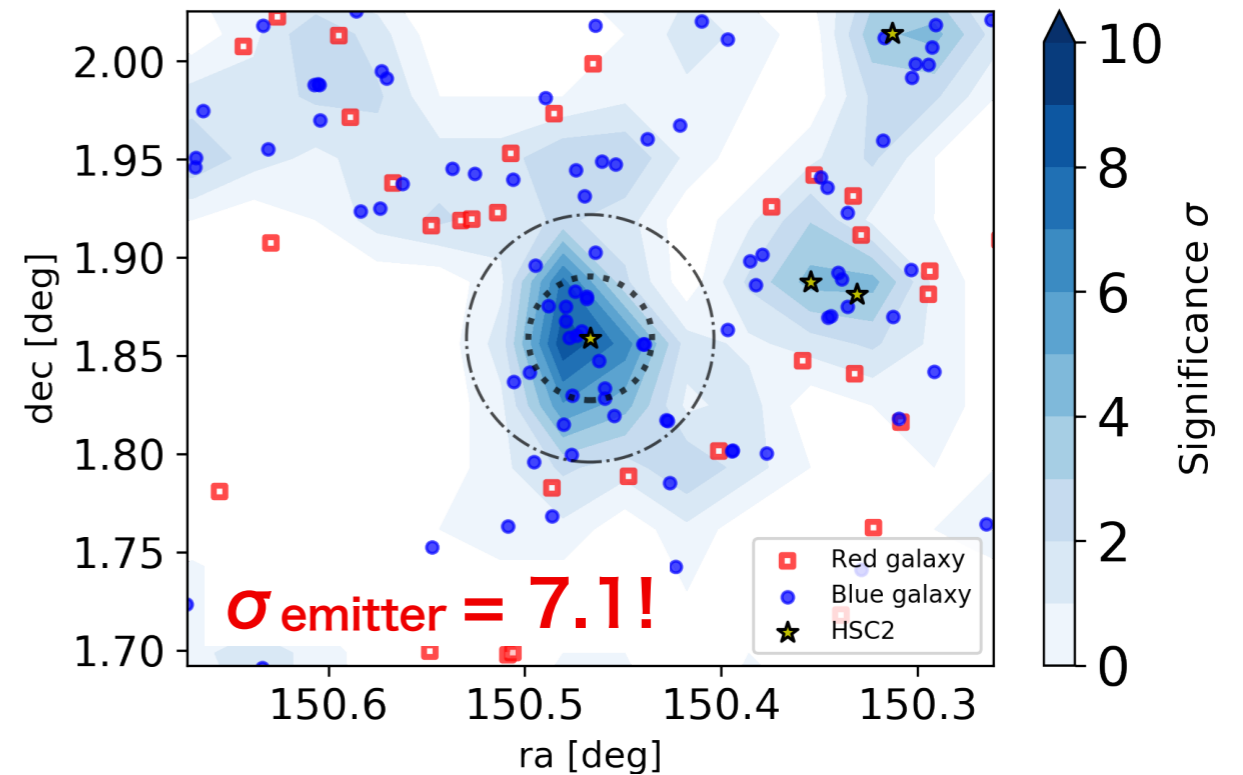
Systematics spectroscopic study with Subaru/PFS

My current work

COSMOS at $z = 1.47$



COSMOS at $z = 1.61$



Estimate total mass (baryon+dark matter) of our candidates

- To understand galaxy group/cluster evolution
- The missing fraction : the fraction of galaxy cluster missed by previous conventional cluster survey

Pilot spectroscopic follow-up observation

- To test our cluster search method
- To study the properties of member galaxies and group/cluster (e.g. dynamical mass, metallicity, ionisation parameter...)

The oversea program

.....
Tracing cosmic evolution with clusters of galaxies

Subaru Telescope 20th Anniversary - Optical & Infrared Astronomy for the Next Decade-

.....
GOGREEN/GCLASS Data Release and Workshop Agenda

- Aug 24-28, 2020
- Oral presentation

Thursday, August 27, 2020

Proposals and collaborations to follow-up GOGREEN clusters

GOGREEN only, with invited guests

EDT	PDT	CEST		
10:00-10:15	07:00-07:15	16:00-16:15	Galaxy cluster selection at $z < 1.7$ with Subaru HSC	Naoyuki Yamamoto, Tohoku University

Workshop on Protoclusters : Galaxies in Confinement

- Aug31- Sep4, 2020
- Short presentation + Slack discussion