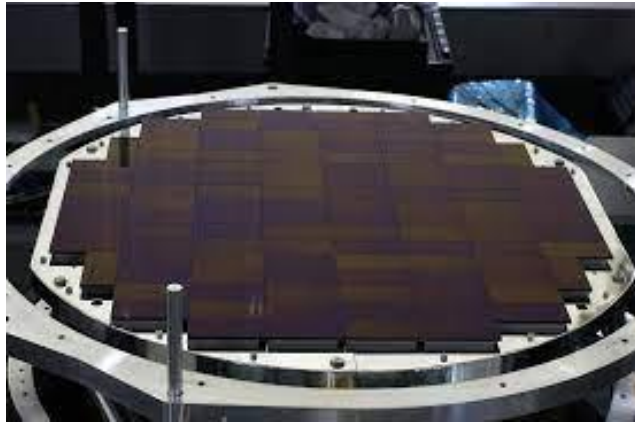


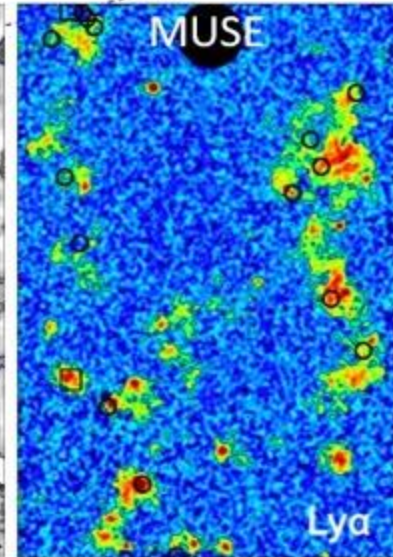
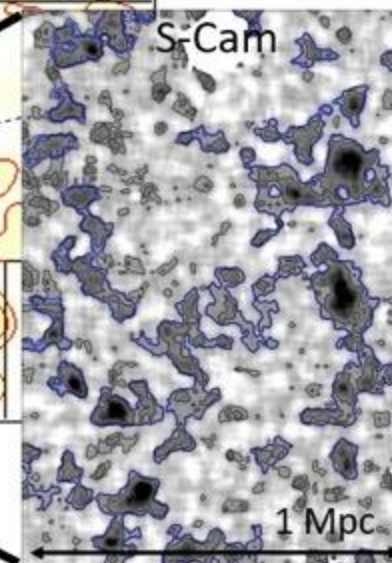
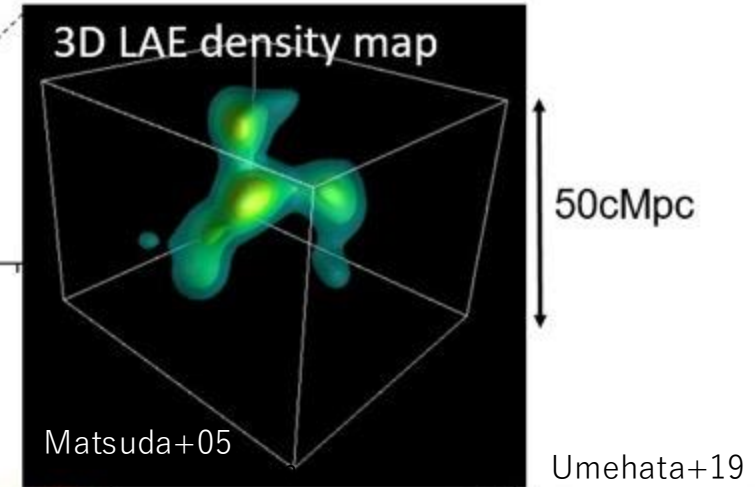
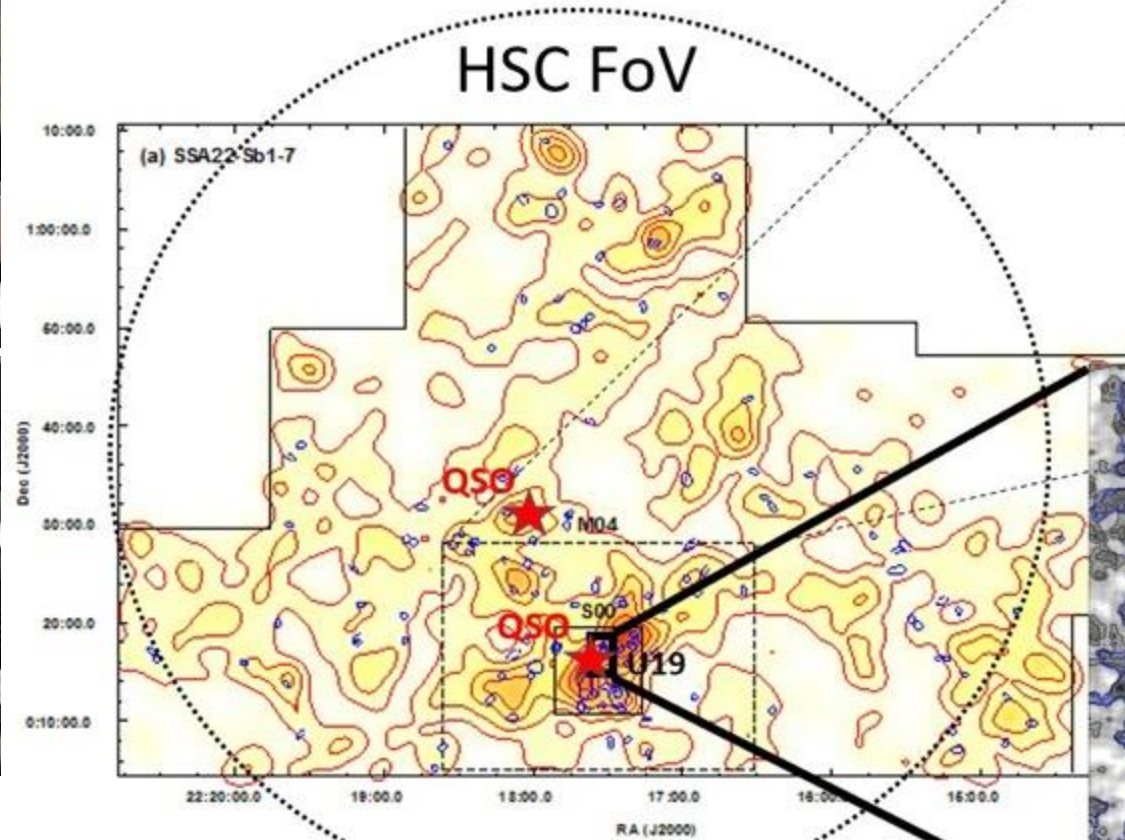
MIRACLES (S21A-114QI)

Mapping of Ionizing **R**adiation on the **C**osmic web with **Ly** α **E**mission and **S**hadow

Yuichi Matsuda (NAOJ) and the MIRACLES team



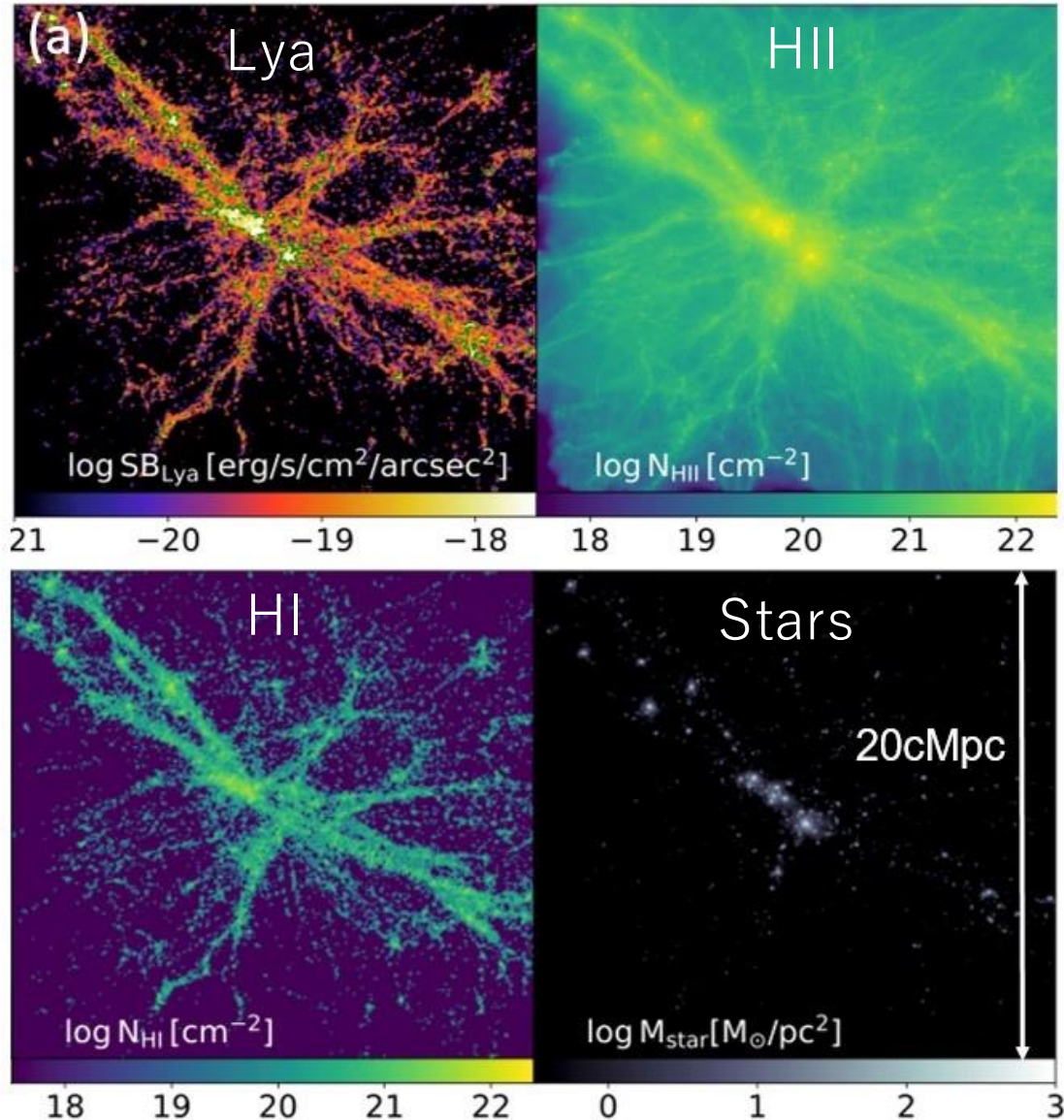
Steidel+00/Hayashino+04/Matsuda+04,05,06,11,12/Yamada+12ab



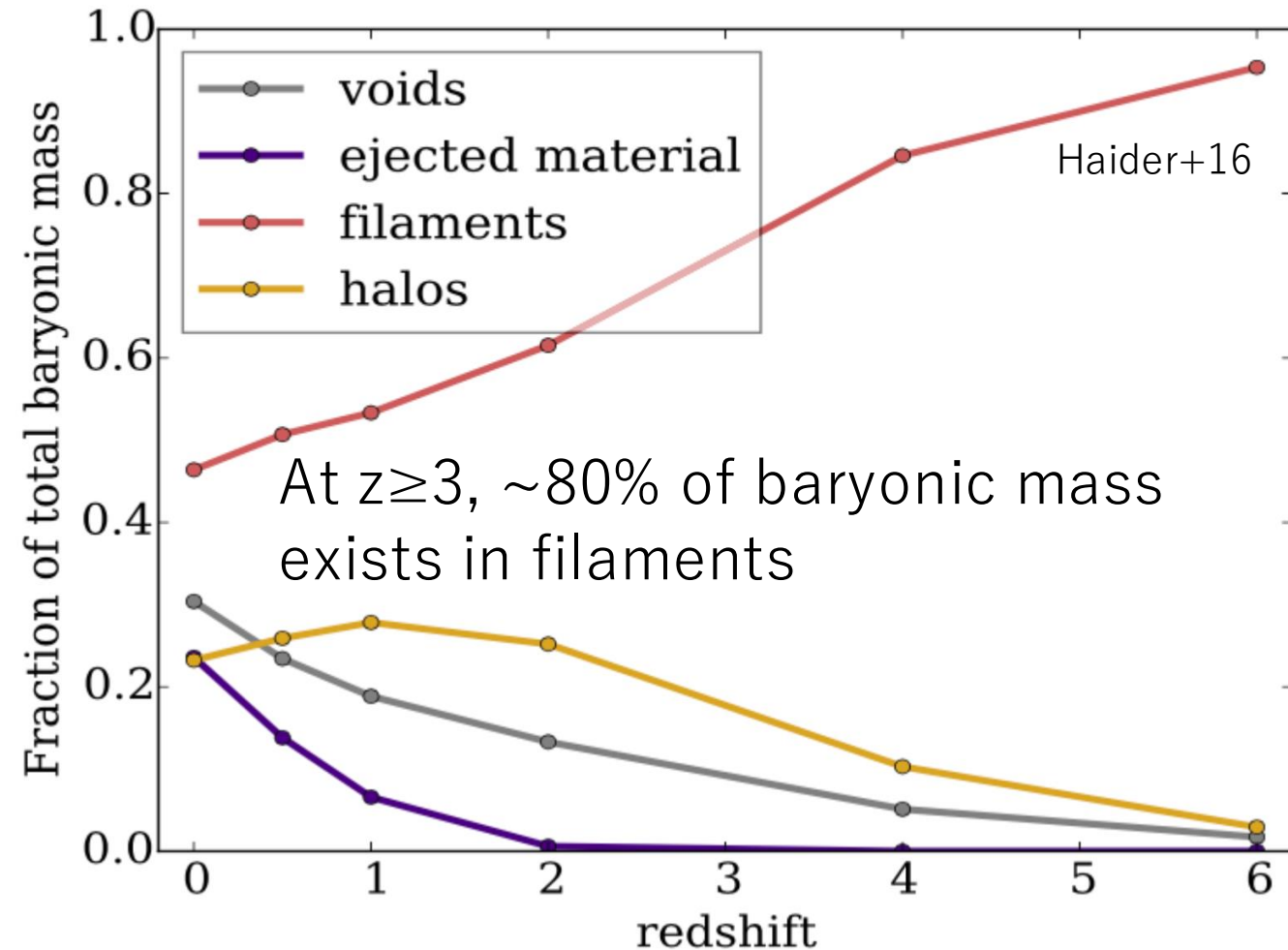
Survey Volume $\sim 180 \times 180 \times 50 \text{ cMpc}^3$

Cosmic Web: Main Gas Supplier for Galaxy Formation

Cosmic Web and Galaxies at $z=3$ (Yajima+21)

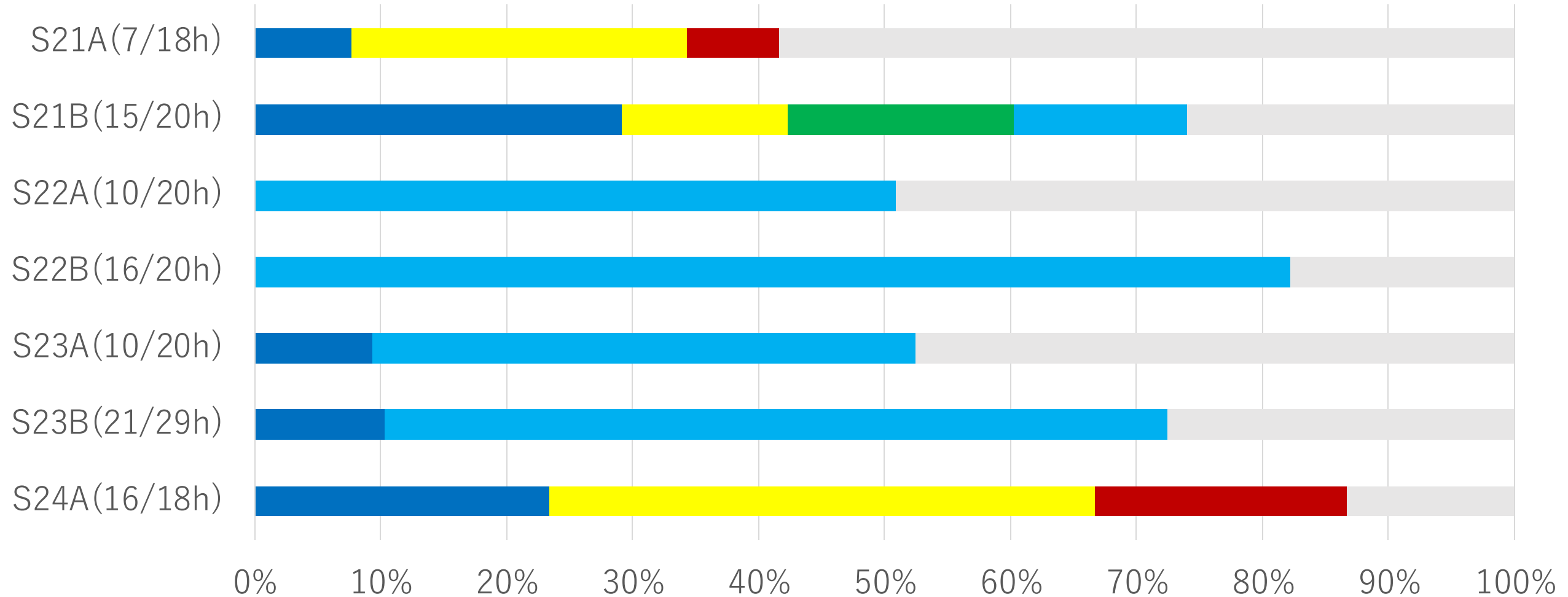


Lya mapping of the cosmic web
Big observational challenge!!



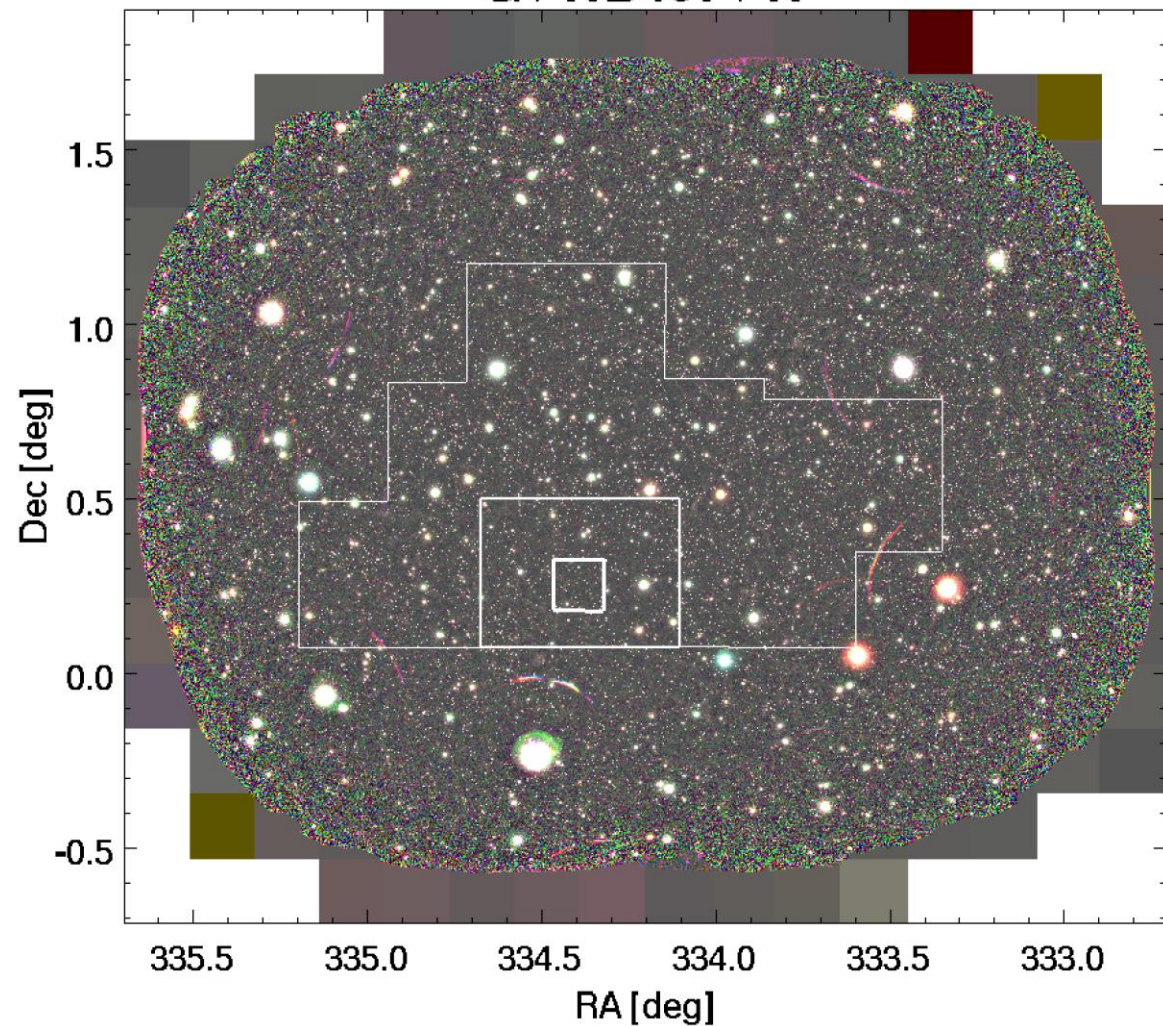
Observations (95/98hrs)

■ g ■ r ■ i ■ NB527 ■ NB497 ■ No/Bad Data

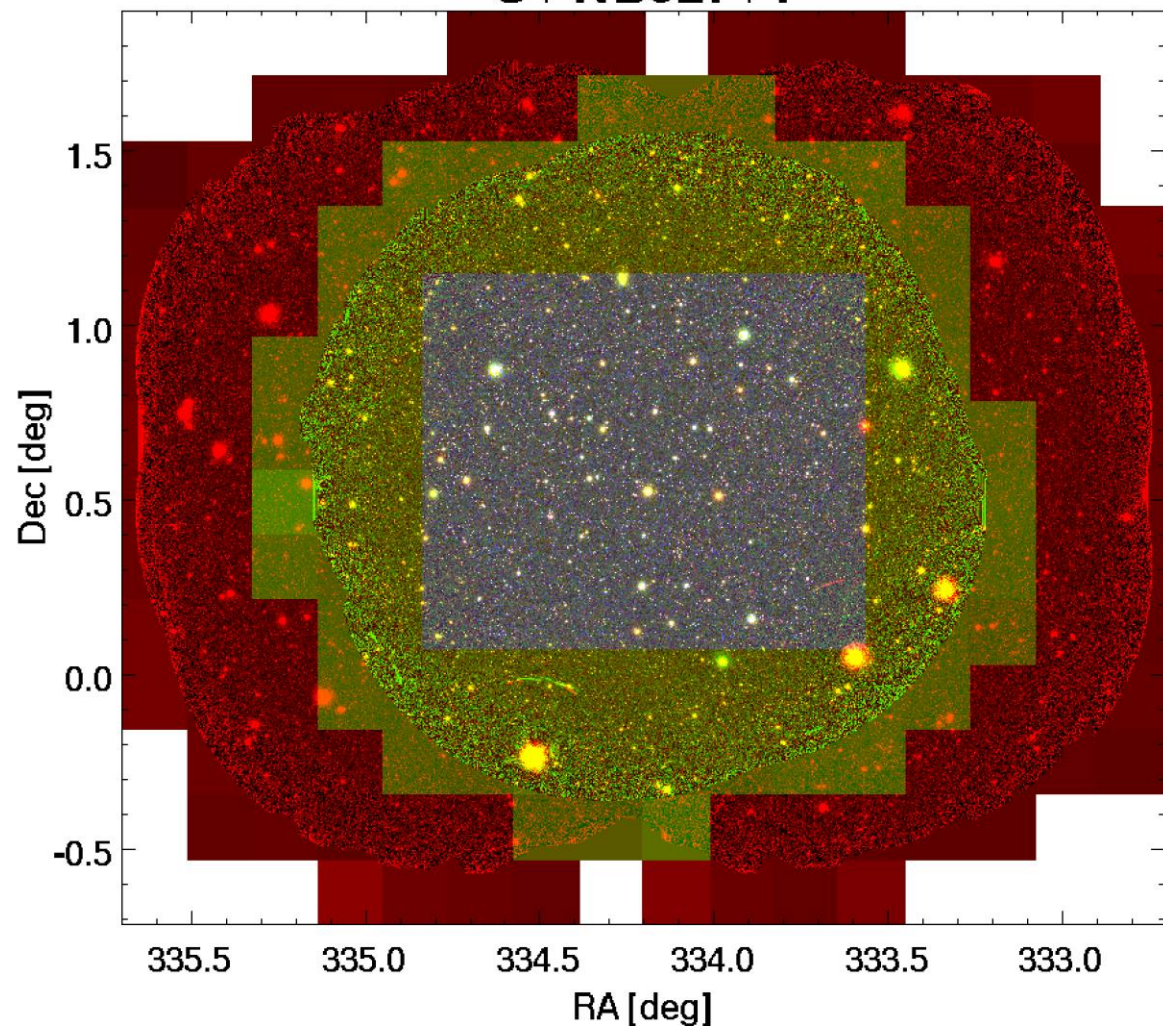


Data Set	u	g	r	i	NB497	NB527
5σ (2" ap)	27.0ABmag	28.3ABmag	28.1ABmag	26.7ABmag	27.3ABmag	26.1ABmag
On-Source time	14.0h	10.2h	12.2h	2.5h	43.3h	4.2h
Seeing	0.93"	0.76"	0.68"	0.56"	0.78"	0.74"

G / NB497 / R



U / NB527 / I



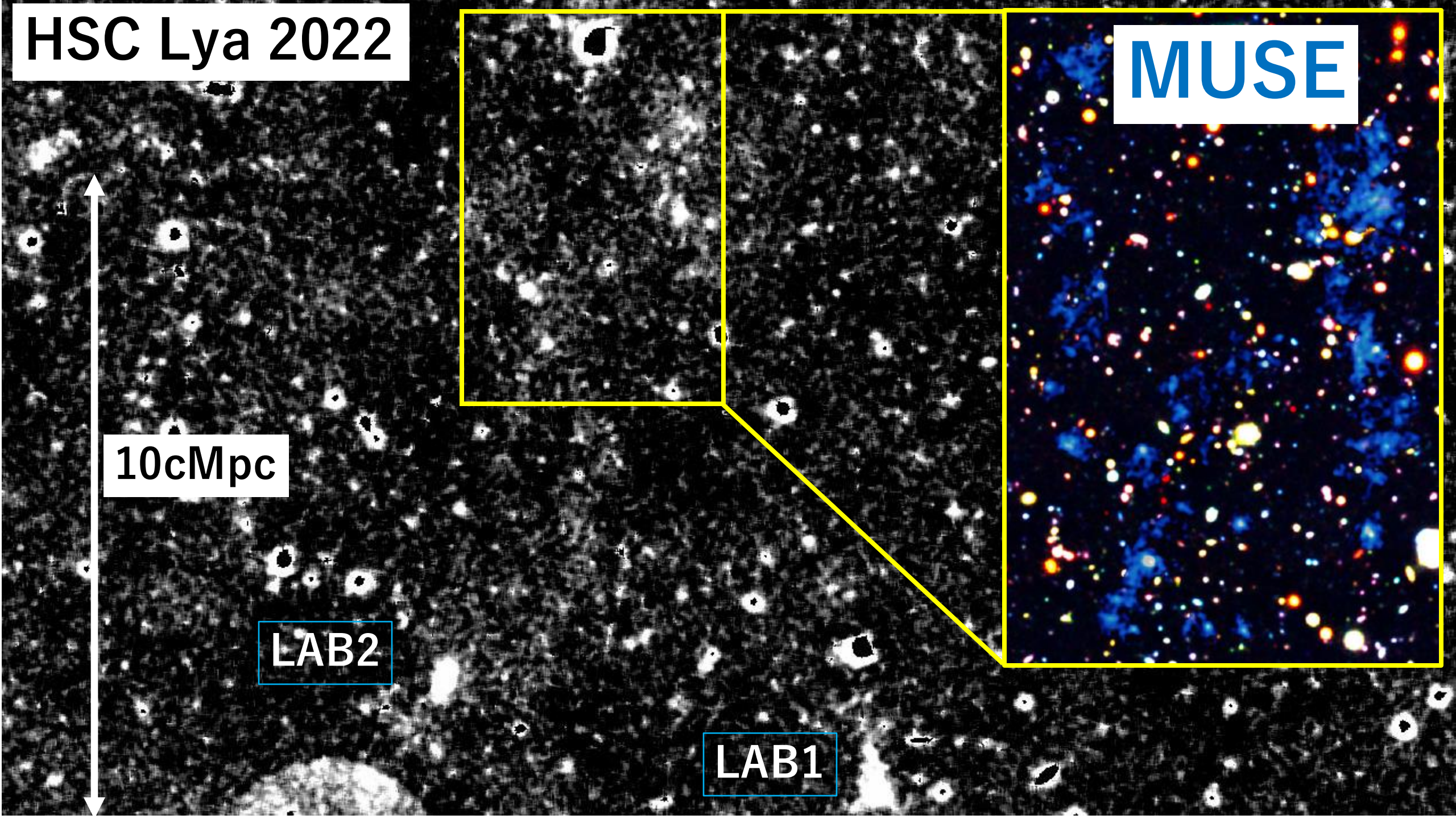
HSC Ly α 2022

10cMpc

LAB2

LAB1

MUSE



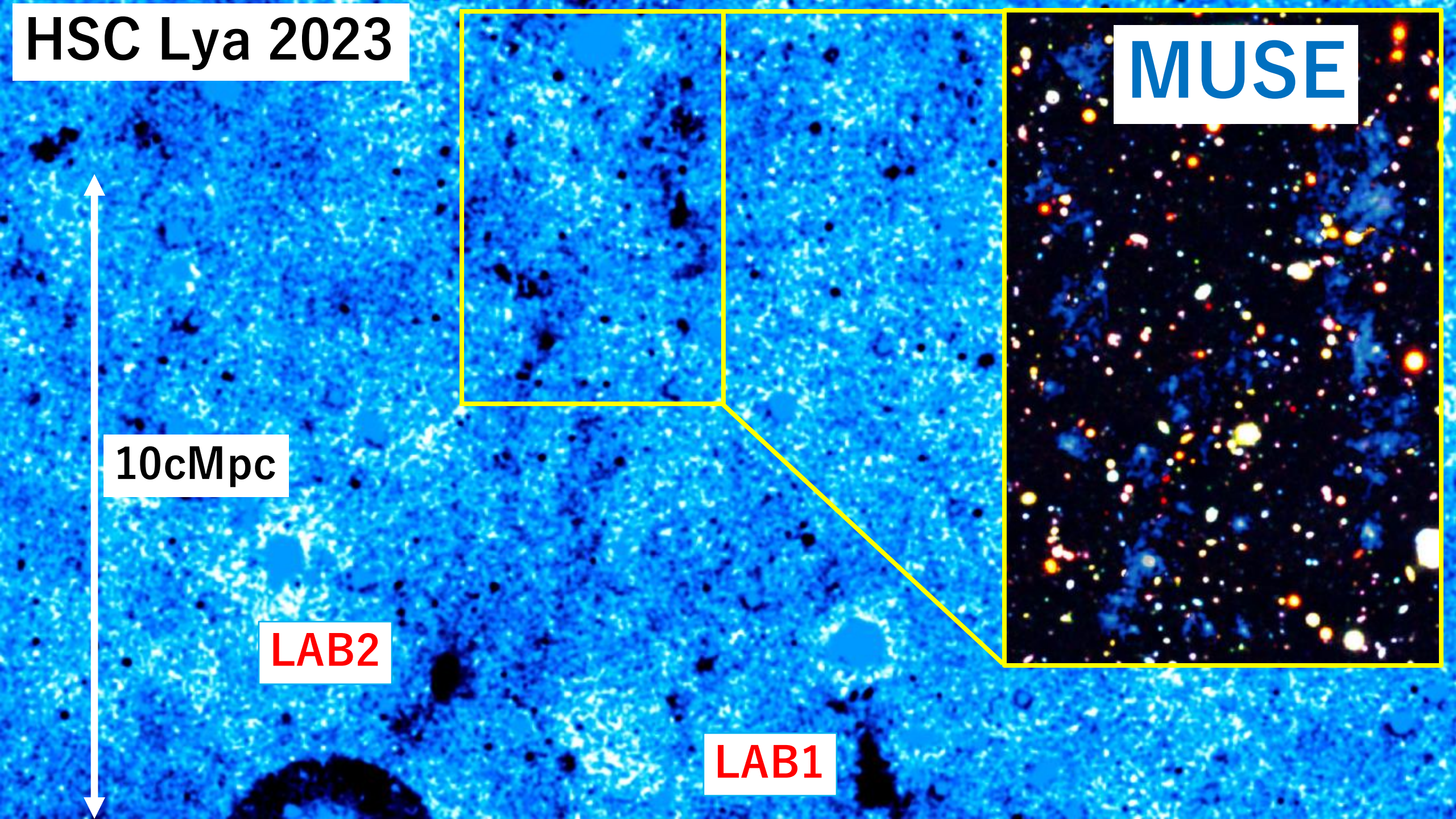
HSC Lya 2023

MUSE

10cMpc

LAB2

LAB1



HSC Lya 2024

MUSE

10cMpc

LAB2

LAB1

