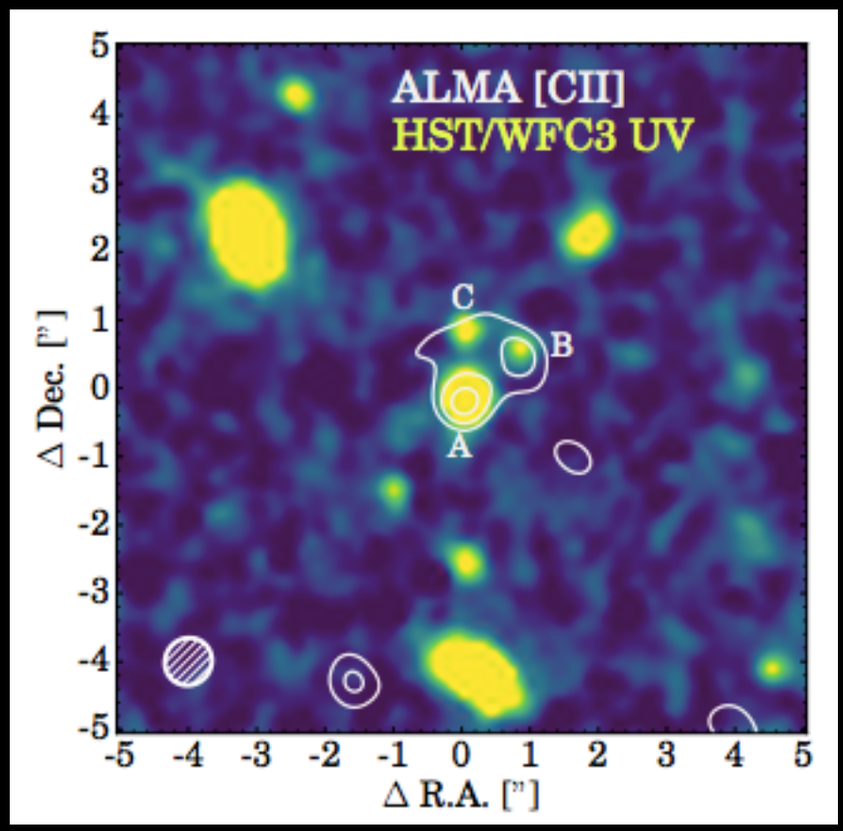
EMIR spectroscopy of Bright Lya sources

D: Sobral (U. Lancaster)
Pablo Arrabal Haro (IAC)
J.M. Rodríguez Espinosa (IAC)
Casiana Muñoz Tuñón (IAC)

Bright Lyα sources

- Large area surveys have found several very bright Lyα sources at high redshift
- These have changed the bright end of the LF
- People have calculated EW and SFR
- However their nature is quite uncertain



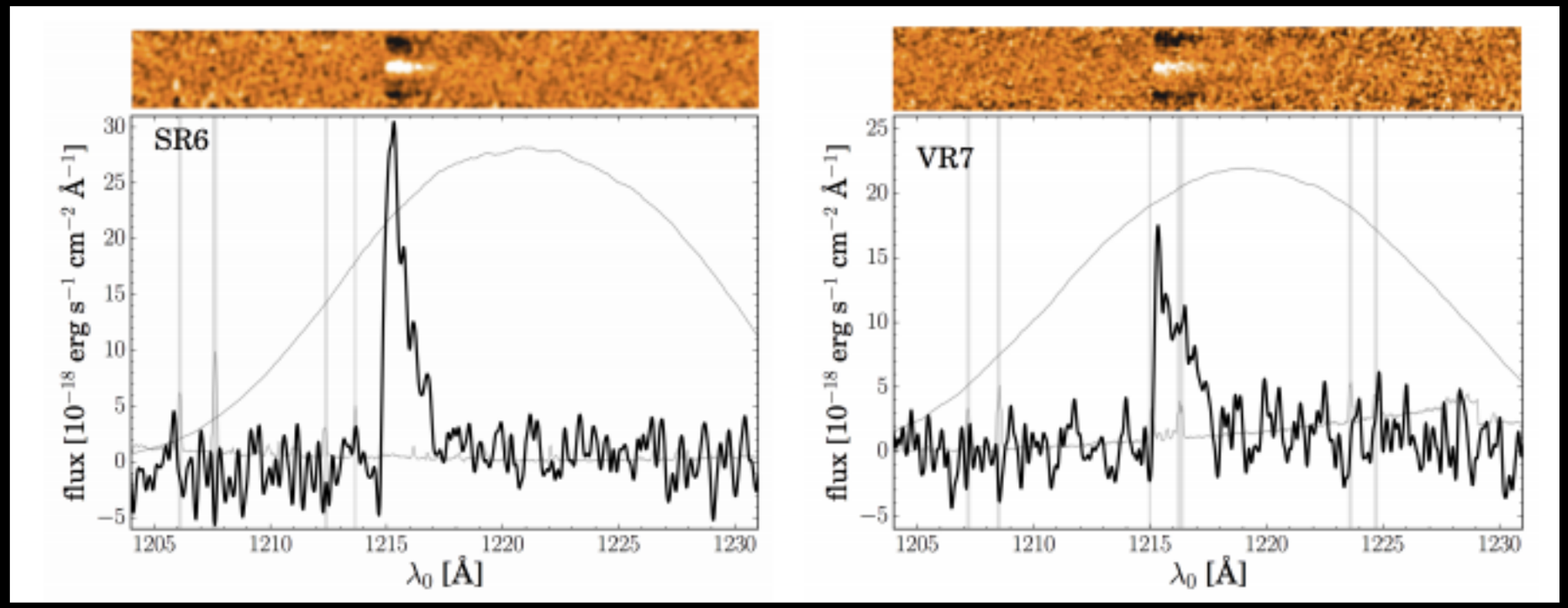
Mathee+2017

The discoverer of CR7 and his revered soccer idol !!!

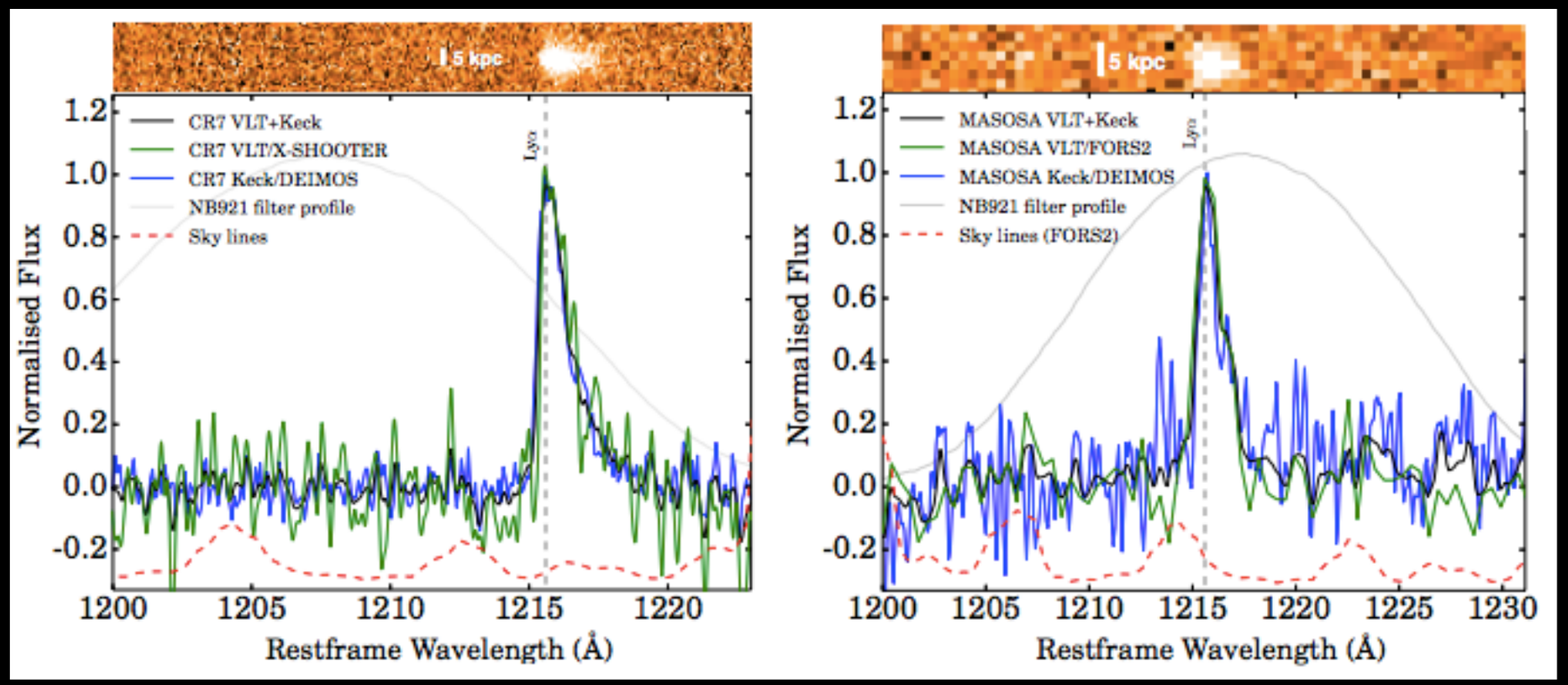




Rest-frame observations

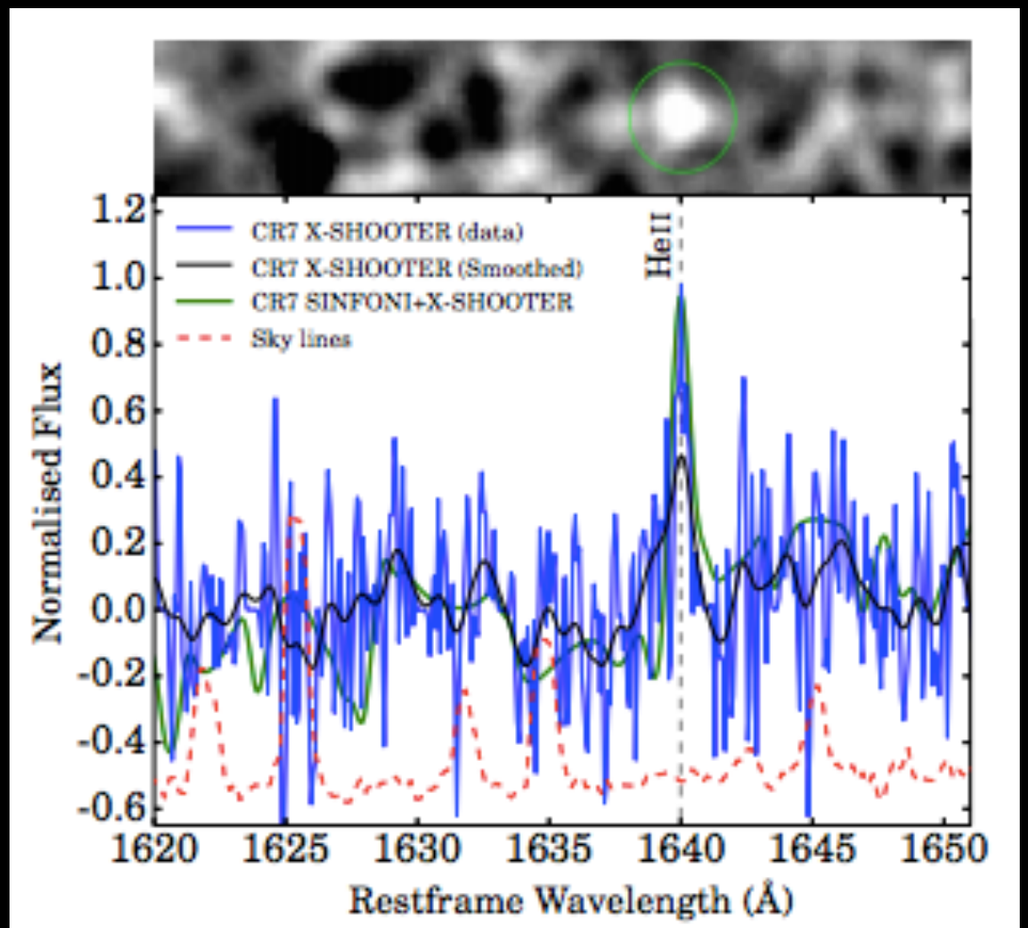


Mathee+2017

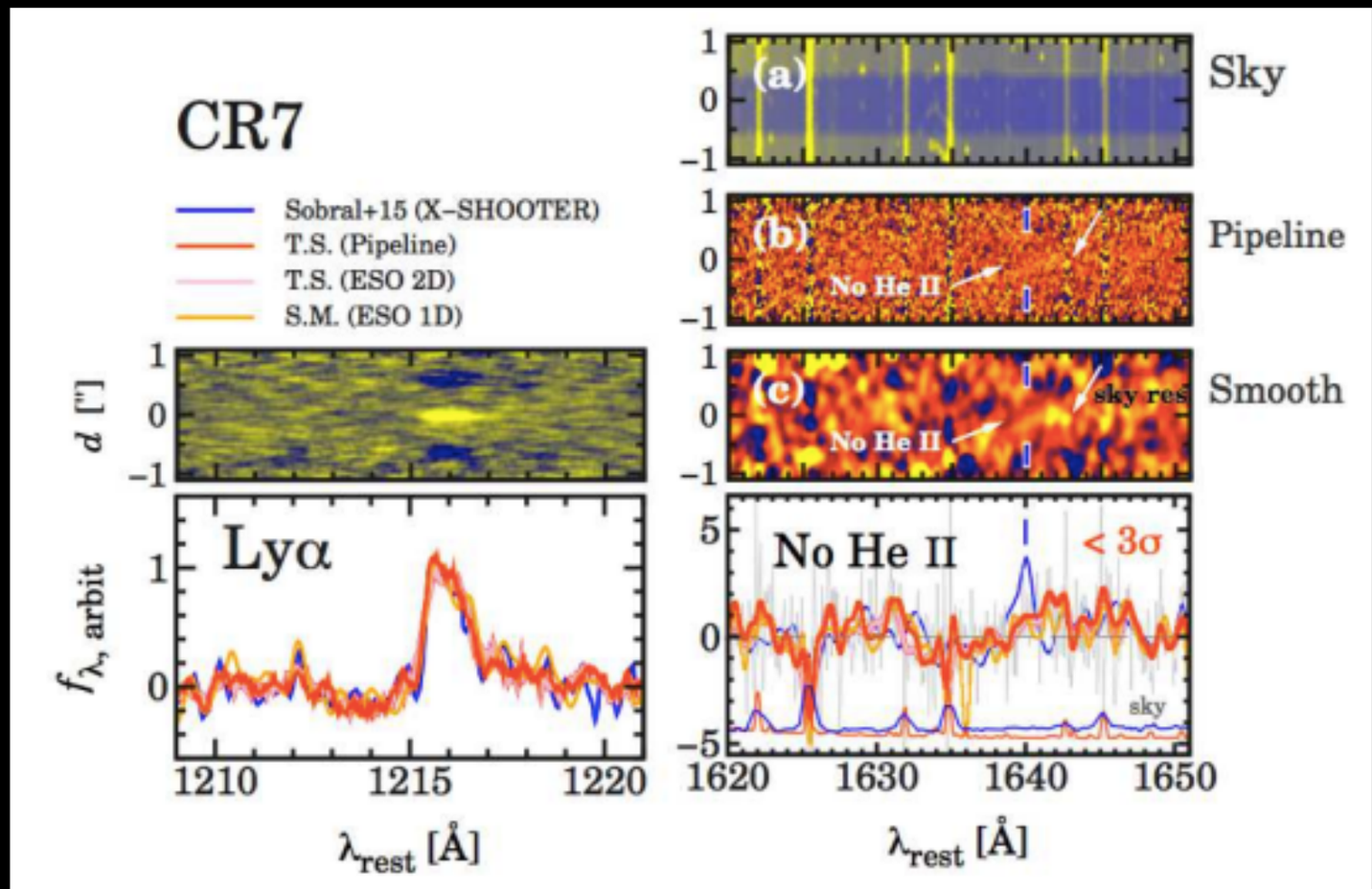


Sobral+2015

HeII 1640Å in CR7?



Sobral+2015



Shibuya+2017

Pop III GaI, AGN, DCBH, LBG ....

Metallicity evolution of direct collapse black hole hosts: CR7 as a case study

Evidence for a direct collapse black hole in the Lyman α source CR7

The Brightest Lyα Emitter: Pop III or Black Hole?

Formation of Massive Population III Galaxies through Photoionization Feedback: A Possible Explanation for CR7

No evidence for Population III stars or a Direct Collapse Black Hole in the $z = 6.6$ Lyman-α emitter 'CR7'

The nature of the Lyman Alpha Emitter CR7: a persisting puzzle

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4 April 2017

The project

- Spectroscopy of 4 of the brightest Lyα emitters (CR7, MASOSA, VR7 & SCR7)

- Spectroscopy of the rest-frame UV metal lines, such as Lyα, CIII]1908Å, CIV1546Å, OIII]1666Å and HeII1640Å

- These will allow to get Metallicities, Ionisation parameters, ISM densities, and study of the stellar populations

- We should be able to tell whether they are AGN, metal poor starbursts with Pop III stars, or DCBH…

- We have requested 30 hours for EMIR near-IR spectroscopy

- This will hopefully provide high s/n data on these bright sources