

The OTELO Survey



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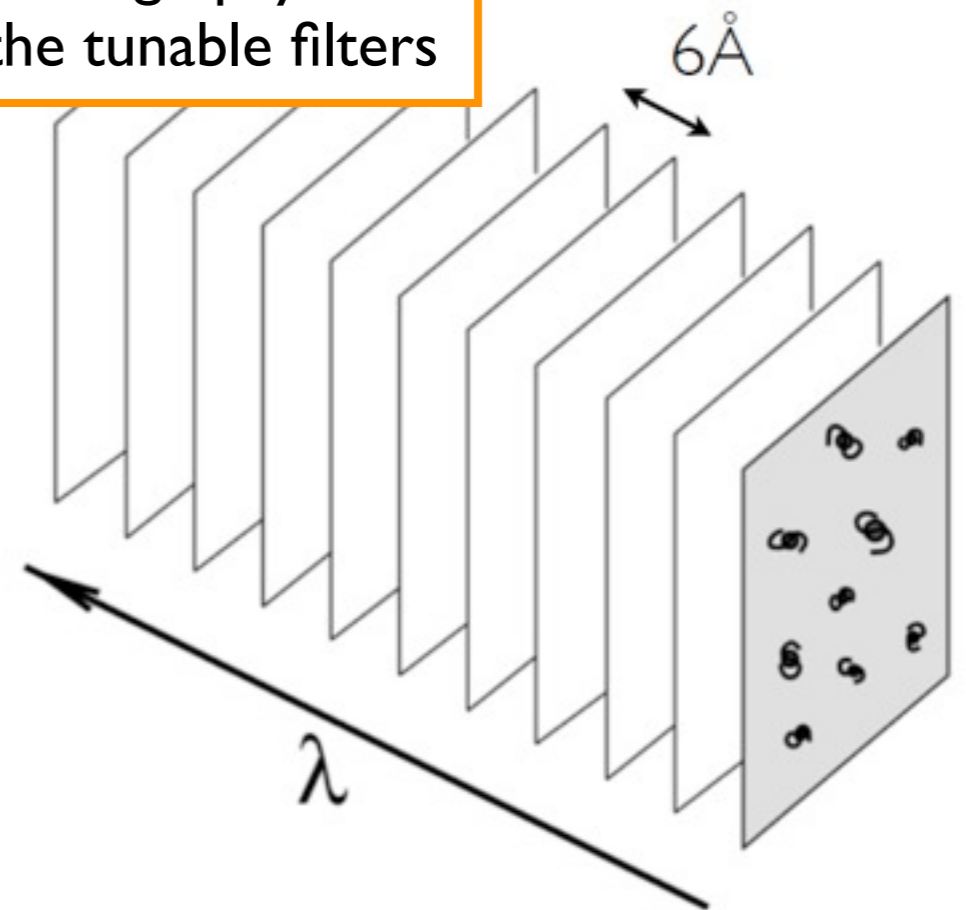
OTELLO: OSIRIS Tunable Emission Line Object Survey

OSIRIS



GTC

Tomography with
the tunable filters



Some hints about OTELO

Field of view: Extended Groth Strip + Lockman Hole
(2 pointings covering 50 arcmin² each)

Wavelength range: 9070 - 9280 Å (NIR)
→ window in the airglow emission

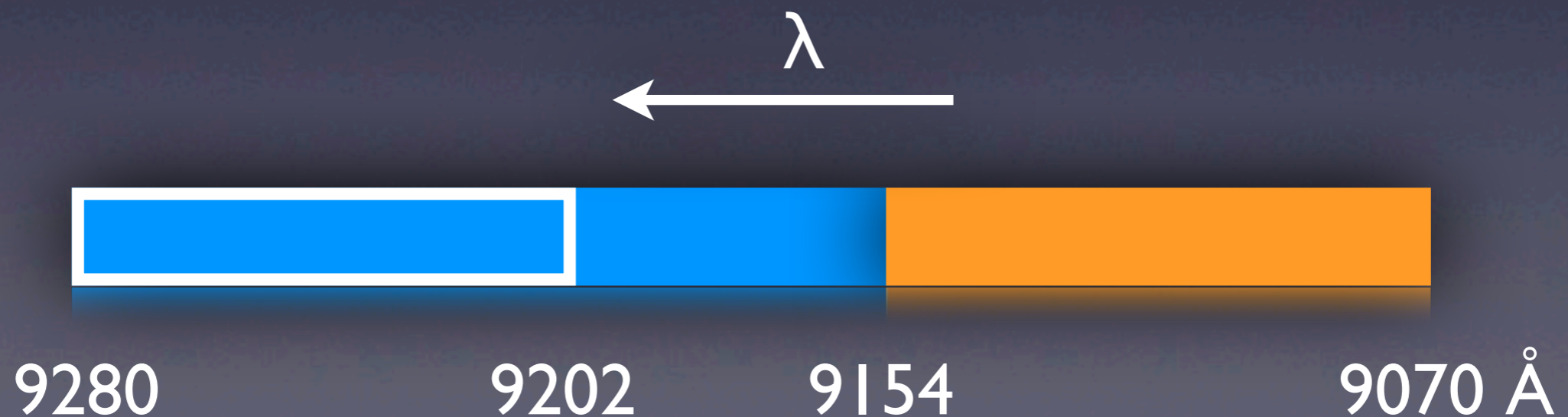
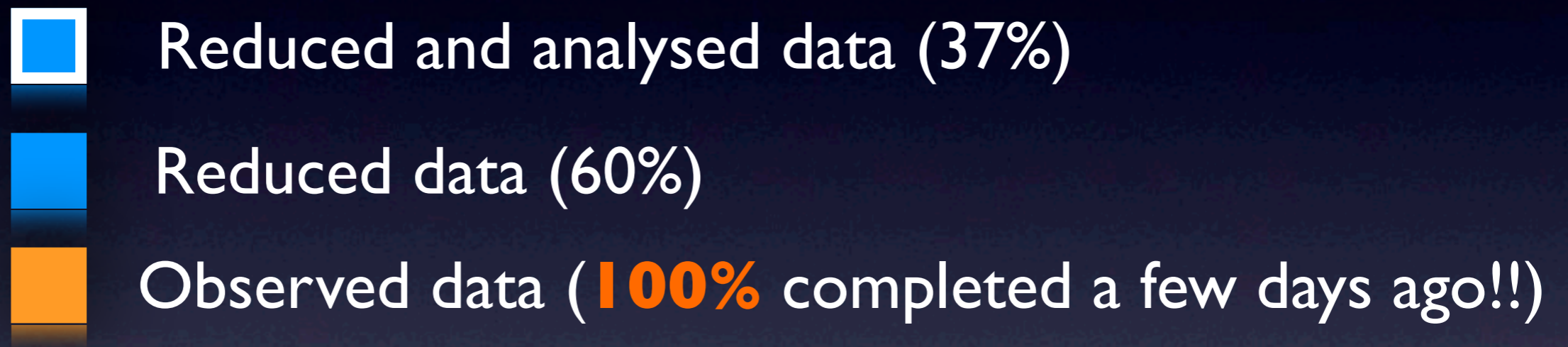
Spectral resolution: to distinguish [NIII] (6583 Å) from H α (6563 Å) ($R \approx 700$)

→ 2D low resolution spectroscopy

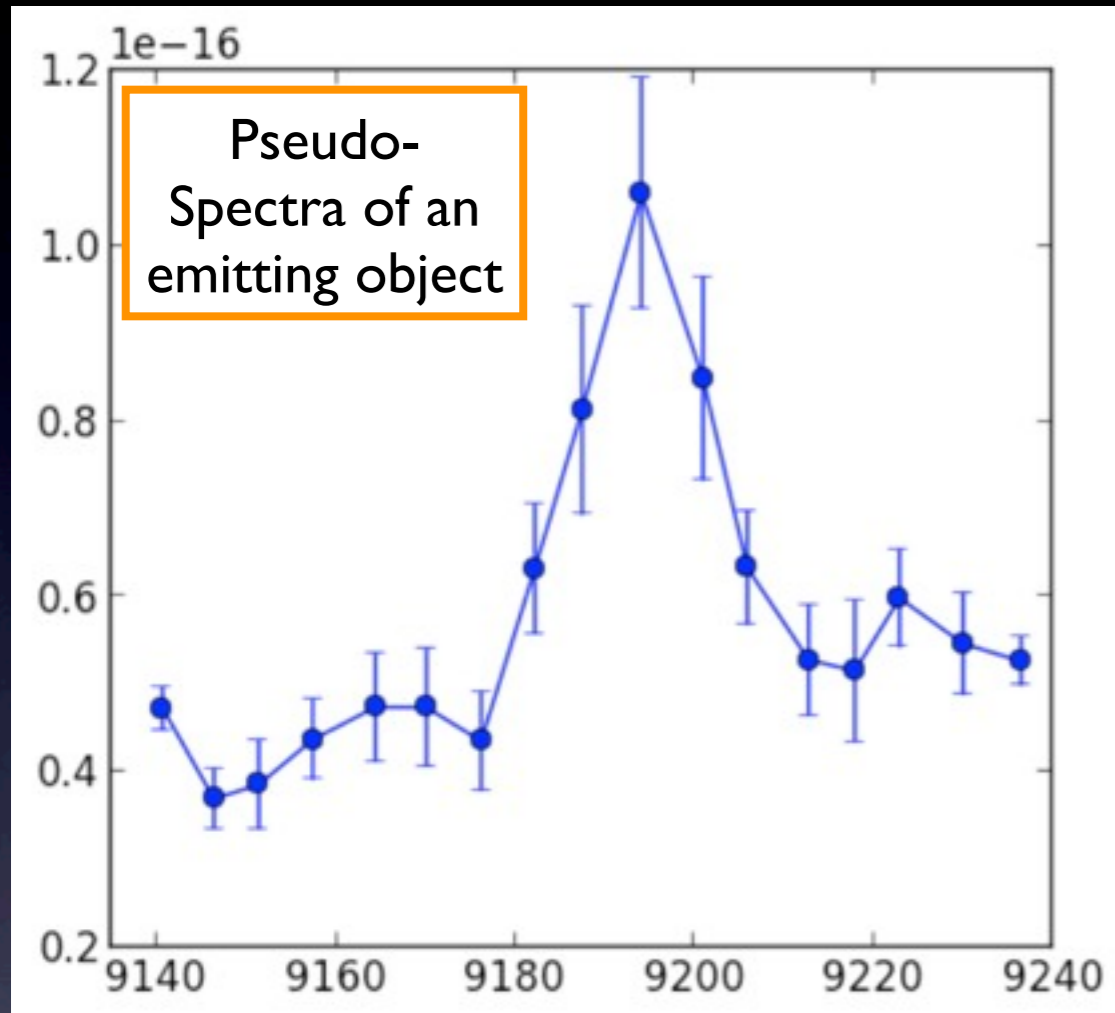
Scientific goal: detect all the objects with emission lines in the field and produce the biggest and deeper catalogue of emitting objects

Status of the OTELO survey

1st pointing

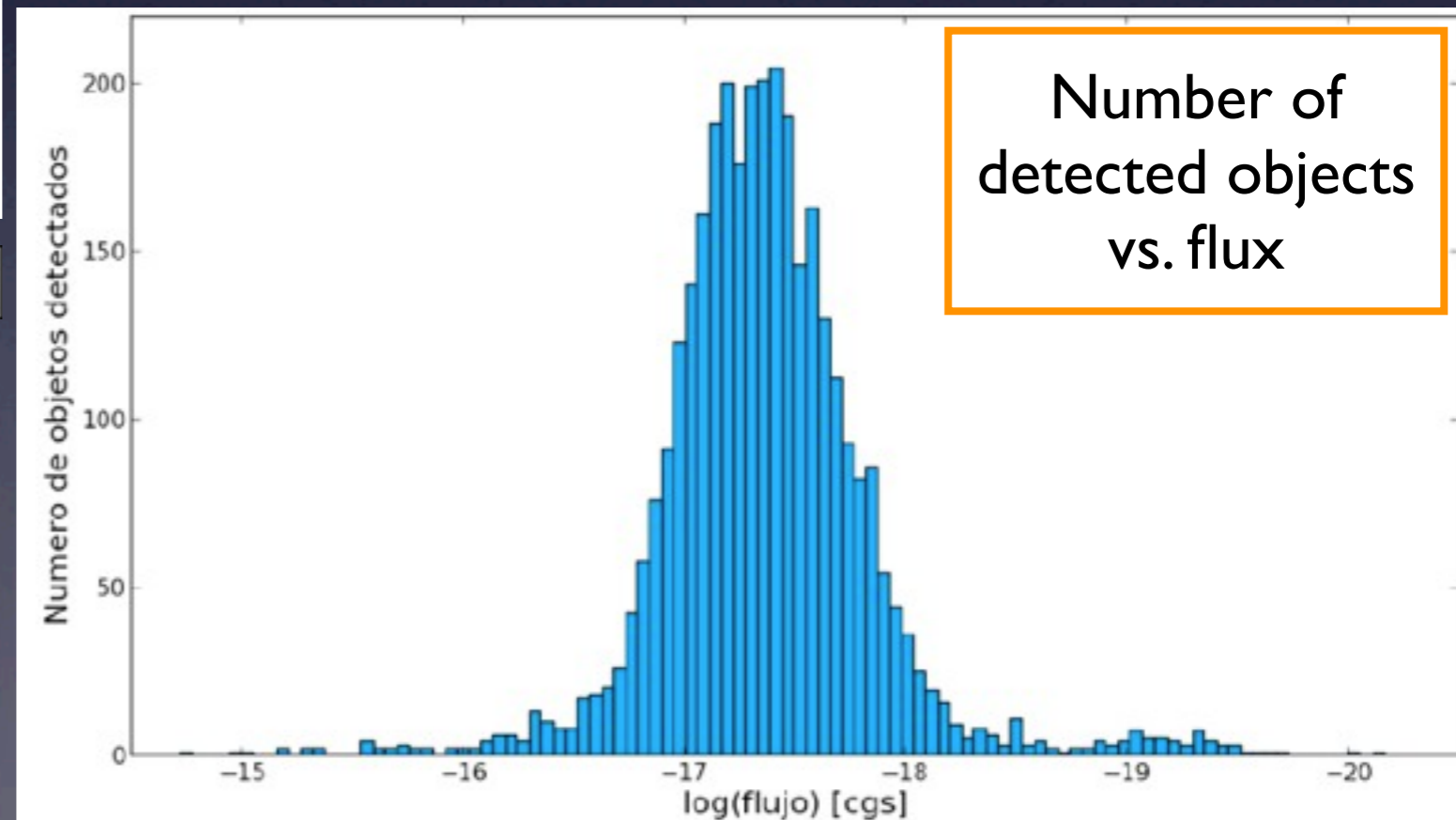


Preliminary results



Limiting flux: 1.27×10^{-18} erg/cm²/s (3σ)

Complete at: 5×10^{-18} erg/cm²/s (3σ)



14% of the objects in the field are emitters



Future work

- Finish the reduction of the data, identify the emission lines, extract the fluxes and EWs...
- Expand the catalogue with data from other surveys at different λ : Herschel (PACS), Spitzer, AEGIS...

Thesis goal:

- Identify and separate Active Galactic Nuclei (AGN) from Star-forming Galaxies (SfG)
- Study in detail the AGN population

Thank You

