#### MOS Observations and LS Spectroscopy at high redshift

Natasha Maddox, SKA Postdoctoral Fellow, UCT with thanks to: Sarah Blyth, Andrew Baker, and all the SALT help people





- Look for intervening absorption systems (DLAs) in high redshift quasar spectra
- Use smaller telescopes to find candidates for further observations



- Look for intervening absorption systems (DLAs) in high redshift quasar spectra
- Use smaller telescopes to find candidates for further observations



- Look for intervening absorption systems (DLAs) in high redshift quasar spectra
- Use smaller telescopes to find candidates for further observations
- Need good sensitivity as blue as possible



- Look for intervening absorption systems (DLAs) in high redshift quasar spectra
- Use smaller telescopes to find candidates for further observations
- Need good sensitivity as blue as possible



- Look for intervening absorption systems (DLAs) in high redshift quasar spectra
- Use smaller telescopes to find candidates for further observations
- Need good sensitivity as blue as possible



## MOS Field of View: ECDF-S



# MOS Field of View: ECDF-S



## MOS Field: Magnitudes

18.56	in a second description of the second descri	and the second state of th
16.00 17.26		
17.64		
8.39		
8.63		
8.94		
16.27 18.83		
17.48		
16.42		n far Namel in Heinsteinschlichensteinschlichen im die eine Heinigen fahr nich som einer som einer som einer so Recht heinigt im heinste henderschlichen som eine eine eine som einer som einer som einer som einer som einer so
18.52		NAMESKARINGSTANDARDEN STATEN ALTER STATENDER IST FLITTAN METROPOLISTICATION IST In the statend statend state ist in the statend state of the statend st
17.95 18.88		
17.02		

## MOS Field: Exposure 1:420s



## MOS Field: Exposure 2:420s

#### MOS Field: Exposure 3: 340s

Aline Republit 1.00 .

# MOS Field: Exposure 1/2



# MOS Field: Exposure 1/2



## MOS Field: Cluster z=0.8



# MOS Field: Cluster z=0.8

34 slitlets 1.5" width 8--12" length



## MOS Field: Magnitudes

		21.27 19.86
		19.29           21.38           21.37           21.68
		21.70 20.14
		18.91 18.91 18.91
		20.18 15.72 21.78 22.23
		22.39 21.36 22.07
		2 <u>0.9</u> 6
		20.93 21.82 22.07
の一般の記載部員構成の必要者法規構並必要が必要す。 電力に指導すると	a an	

# MOS Field: Exposure 1:600s 10May



# MOS Field: Exposure 2: 350s 10May



# MOS Field: Exposure 1:700s 14June



## MOS Field: Exposure 2: 340s (with realignment)



## MOS Field: Exposure 1/2 10May



# MOS Field: Exposure 1/2 10May



## MOS Field: Exposure 1/2 14June



# MOS Field: Exposure 1/2 14June





#### The traces shift non-uniformly from exposure to exposure



The traces shift non-uniformly from exposure to exposure
The traces shift non-uniformly from observation to observation



The traces shift non-uniformly from exposure to exposure
The traces shift non-uniformly from observation to observation
The skylines also shift



- The traces shift non-uniformly from exposure to exposure
- The traces shift non-uniformly from observation to observation
- The skylines also shift
- This makes combining non-detections to build a detection very difficult



- The traces shift non-uniformly from exposure to exposure
- The traces shift non-uniformly from observation to observation
- The skylines also shift
- This makes combining non-detections to build a detection very difficult
  Realignment between exposures can reduce the shift, but takes time



- The traces shift non-uniformly from exposure to exposure
- The traces shift non-uniformly from observation to observation
- The skylines also shift
- This makes combining non-detections to build a detection very difficult
  Realignment between exposures can reduce the shift, but takes time
  Slits close to the edge of the mask can be missed

