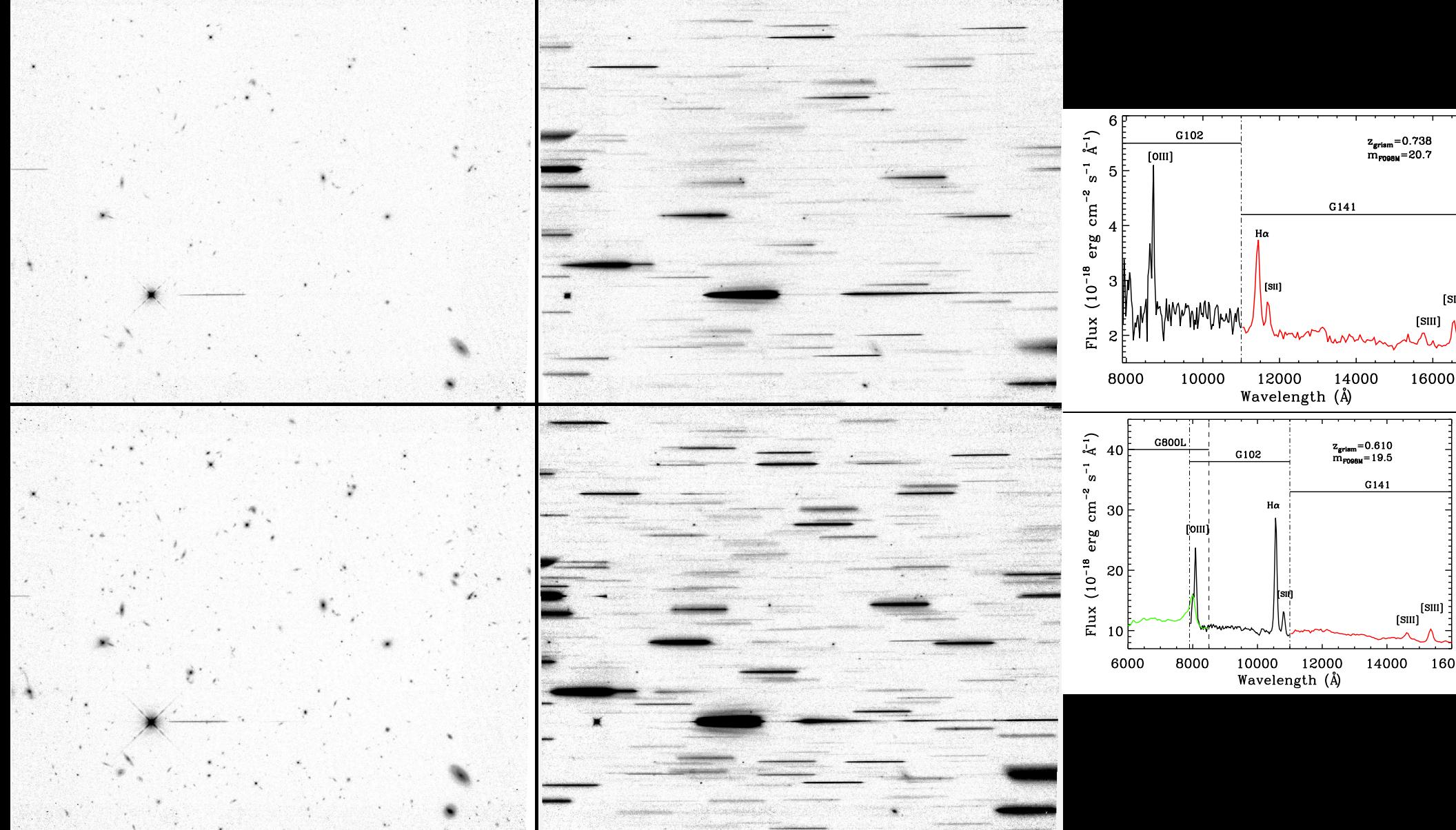


- (Left) GAMA survey yield 23,000 galaxy groups to  $z \lesssim 0.5$  over  $200 \text{ deg}^2$ : 2400 have  $N(z_{spec}) \geq 5$  with AAO to AB  $\lesssim 20$  mag (Robotham et al. 2011).
- (Right) The most massive ( $\sim 10^{14.5} M_\odot$ ) GAMA groups at  $z \gtrsim 0.4$  will be used as gravitational lenses for JWST studies at  $z \simeq 2-20$ .
- SIMAP will provide 500,000 group redshifts to  $z \lesssim 0.5$  over  $4\pi$  ster, and  $\sim 10^6$  massive groups to  $z \lesssim 1$ : ultimate all-sky lensing portal for  $z \simeq 2-20$ !



HST/WFC3 G102 & G141 grism spectra in GOODS-S ERS (Straughn<sup>+</sup> 2011)

- Example: SIMAP's 8'' FWHM,  $R \approx 200$ : e.g., two (or more) galaxies in the lower-right corner would yield one SIMAP group redshift at  $z \gtrsim 0.5$ !
- SIMAP space grism spectra:  $\sim 10^6$  all-sky massive group redshifts to  $z \lesssim 1$ !