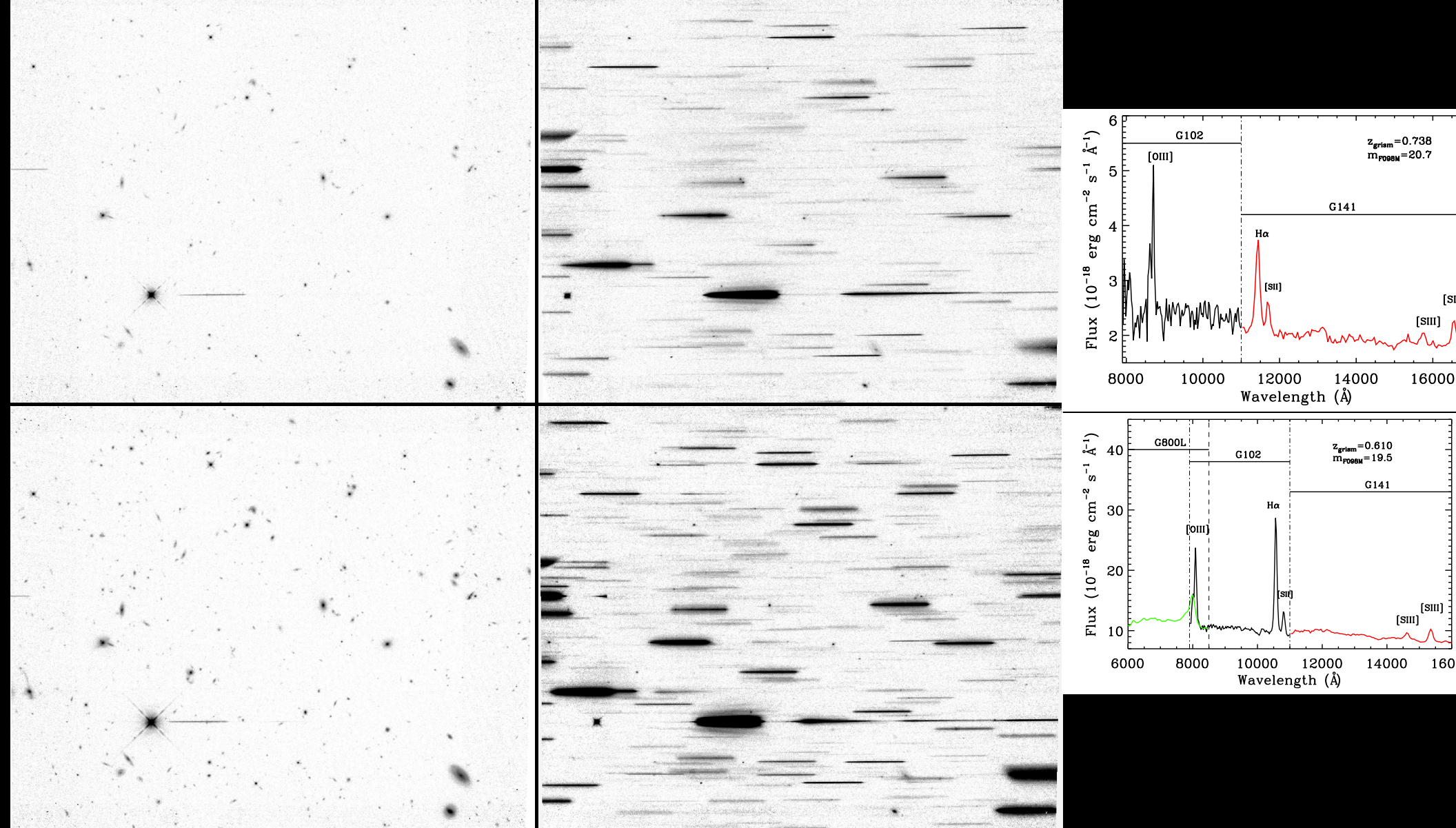


- (Left) GAMA survey yield 23,000 galaxy groups to $z \lesssim 0.5$ over 200 deg^2 : 2400 have $N(z_{\text{spec}}) \geq 5$ with AAO to $AB \lesssim 20$ mag (Robotham et al. 2011).
- (Right) The most massive ($\sim 10^{14.5} M_{\odot}$) GAMA groups at $z \gtrsim 0.4$ will be used as gravitational lenses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

- Example: SIMAP's 8" FWHM, $R \simeq 200$: 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 $z \lesssim 1$!