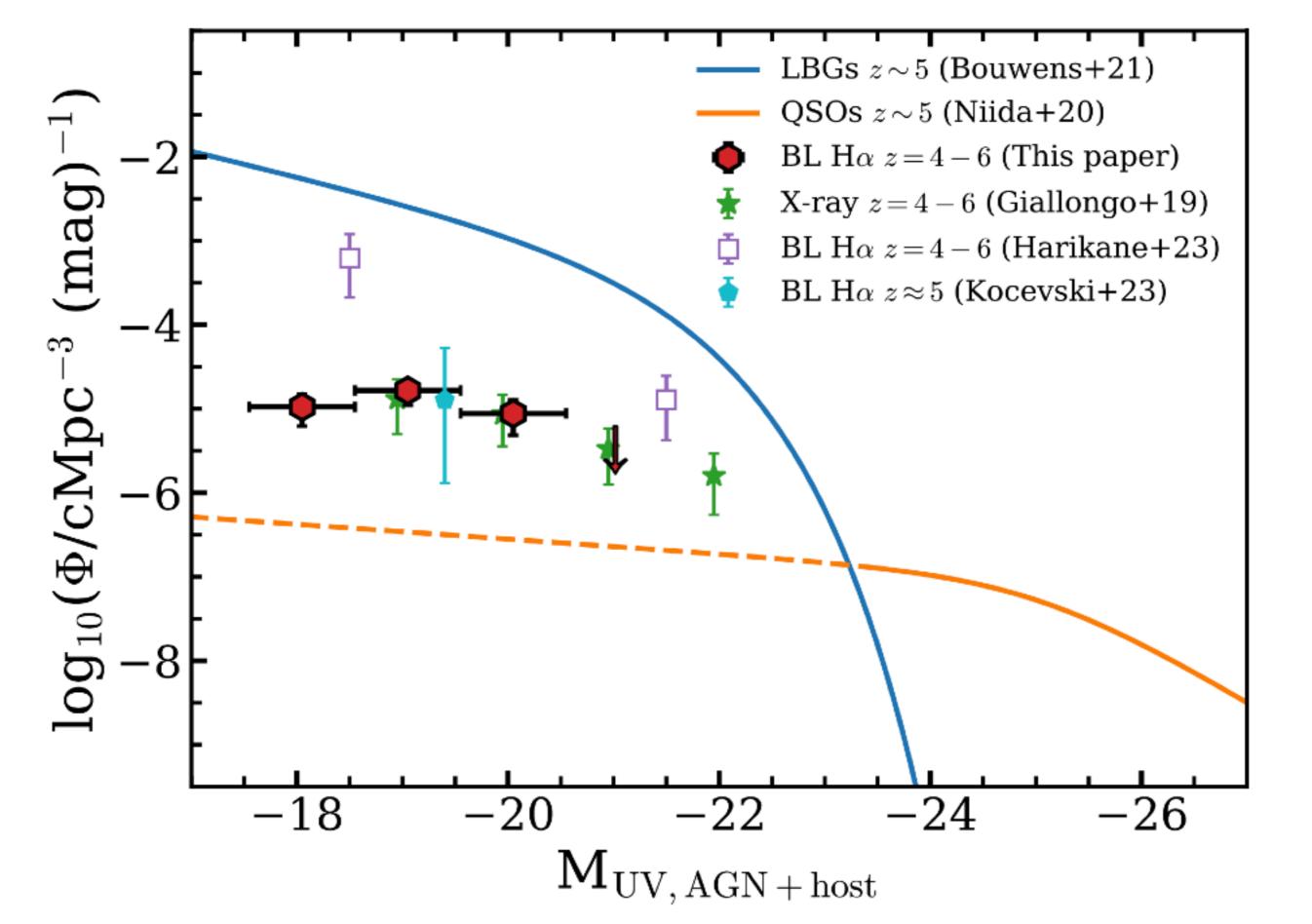




low fraction of AGN





Galaxy

Bright Quasar



similar to estimation & X-ray sources

a factor ten higher than quasar UV LF

significantly lower than Harikane+23

Number Density / Luminosity Function

LBGs $z \sim 5$ (Bouwens+21) $(mag)^{-1}$ Galaxy QSOs $z \sim 5$ (Niida+20) BL H $\alpha z = 4 - 6$ (This paper) X-ray z=4-6 (Giallongo+19) BL H $\alpha z = 4 - 6$ (Harikane+23) BL H $\alpha z \approx 5$ (Kocevski+23) $\log_{10}(\Phi/\mathrm{cMpc}^{-})$ **Bright Quasar** -18-20-22-24-26 ${ m M_{UV,\,AGN\,+\,host}}$

with detectable volume scaled

$$\Phi(M) = \frac{1}{\Delta M} \sum_{i} \frac{1}{V_{\text{max },i}}$$

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Ha Luminosity Function

