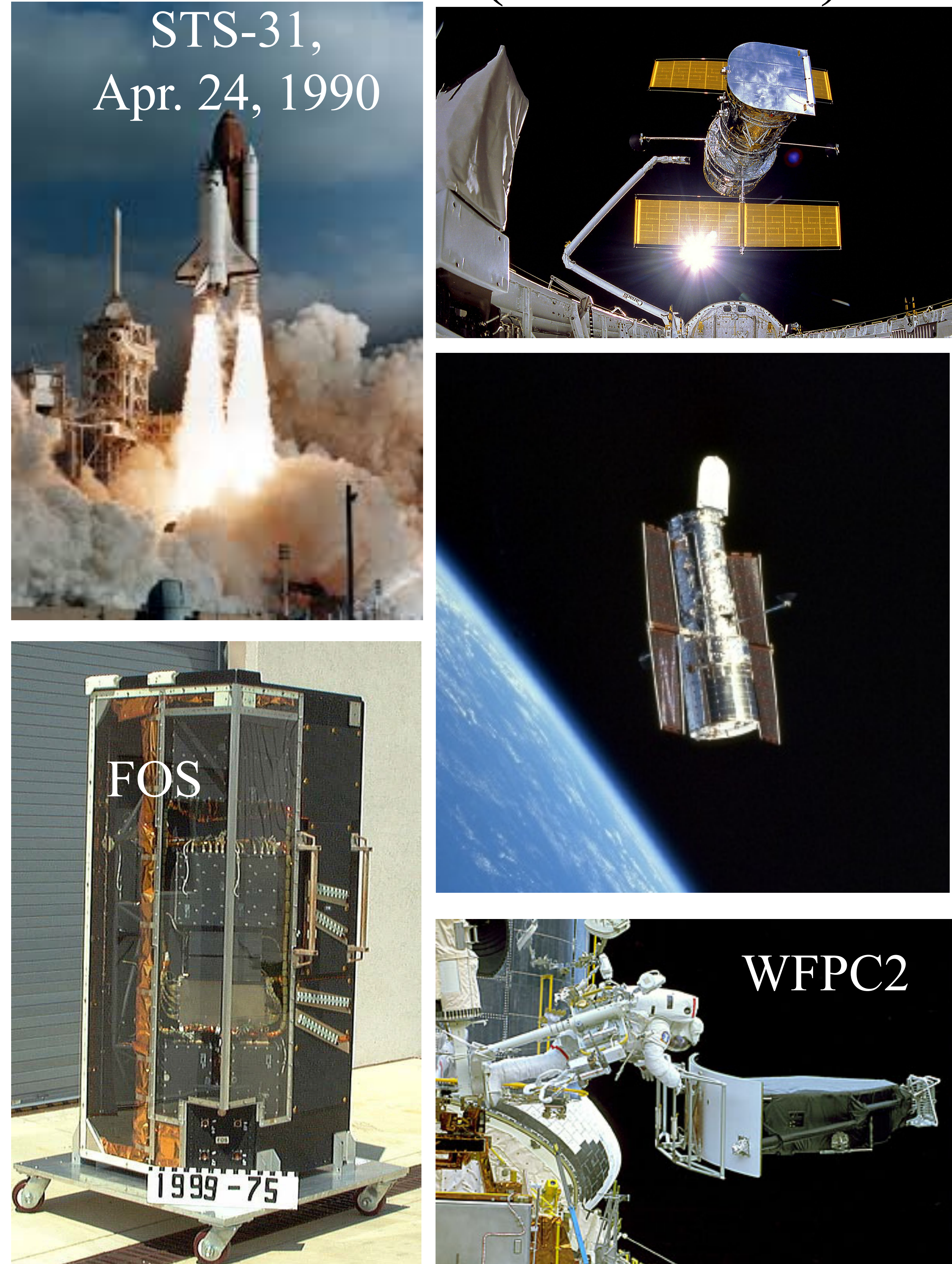


Historical Celebration – 1988 – 1997 – 60 yrs UV Astronomy



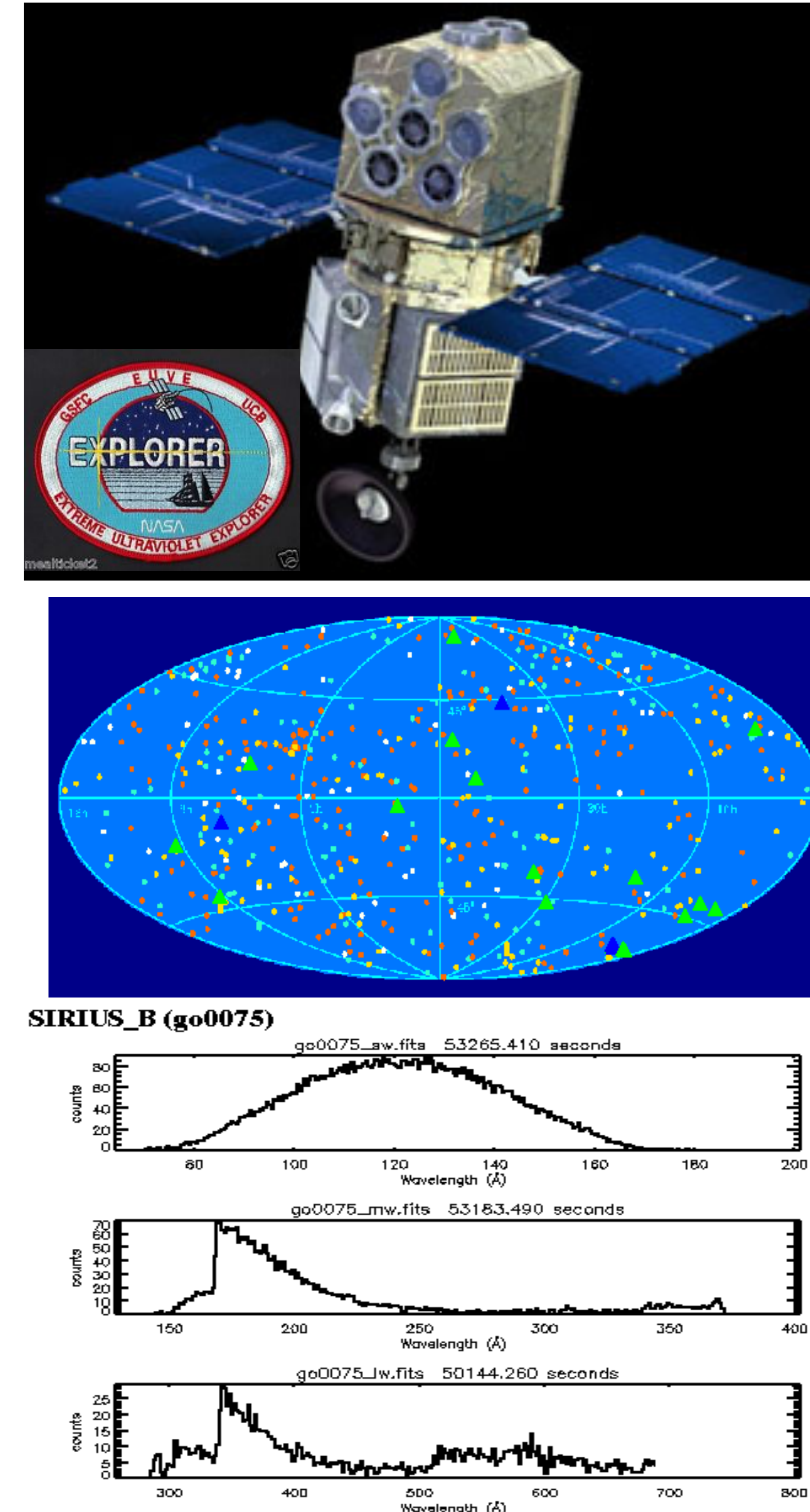
**HST Launch (Apr. 1990)
& SM1 (Dec. 1993)**



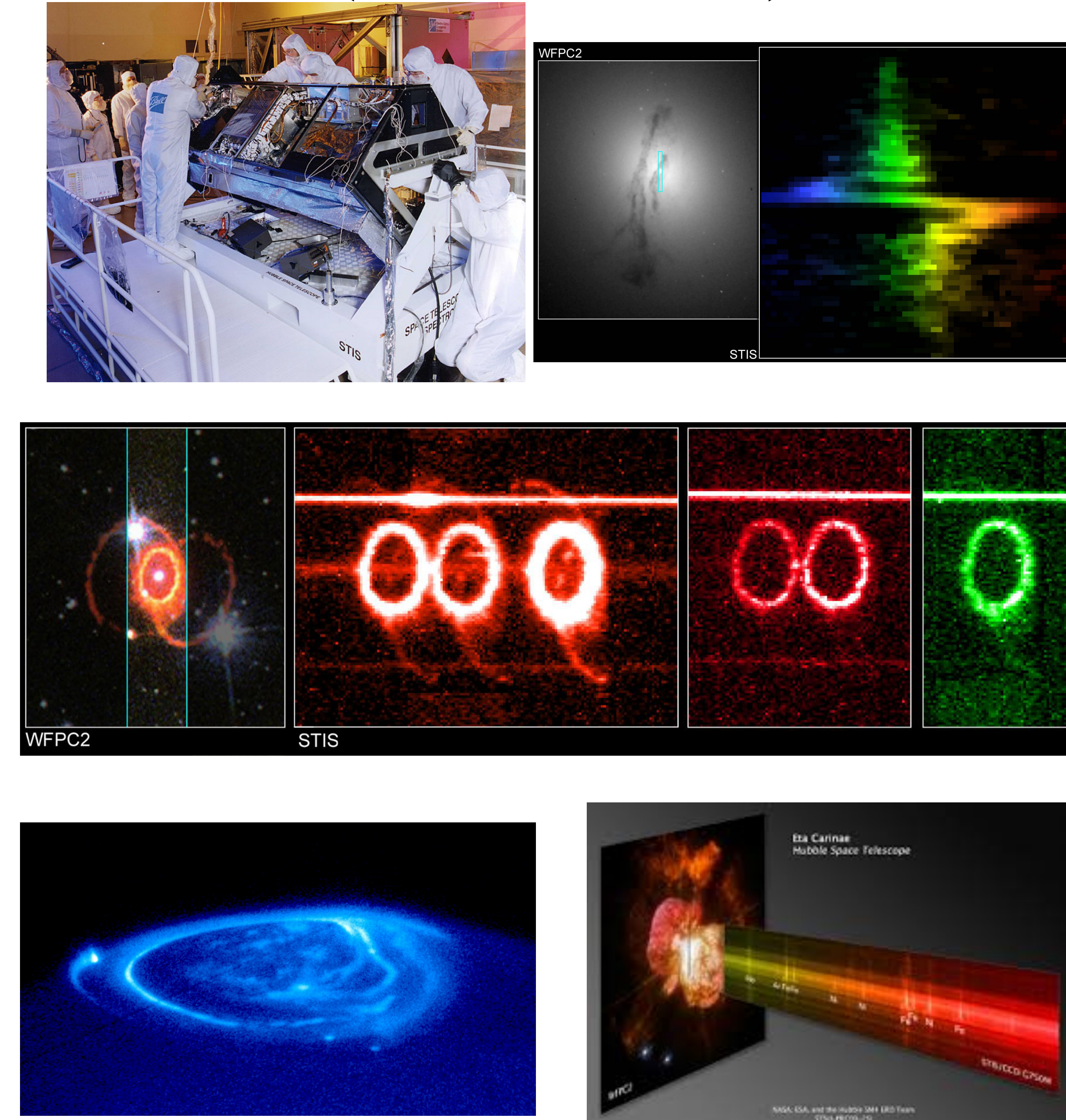
**Astro-1 STS-35 (1990) &
Astro-2 STS-67 (1995)**



**EUVE (1992)
Bowyer -PI**



**STIS/HST
(SM2,1997)**



**Comet Hale-Bopp
NASA/JHU Sounding
Rocket 36.156UG
(April 1997) Feldman-PI**



Strongest Ever Carbon Monoxide Emission

**ORFEUS
STS-51 (1993)
STS-80 (1996)
BEF (UCB, Hurwitz-PI)
IMAPS (Princeton, Jenkins – PI)**

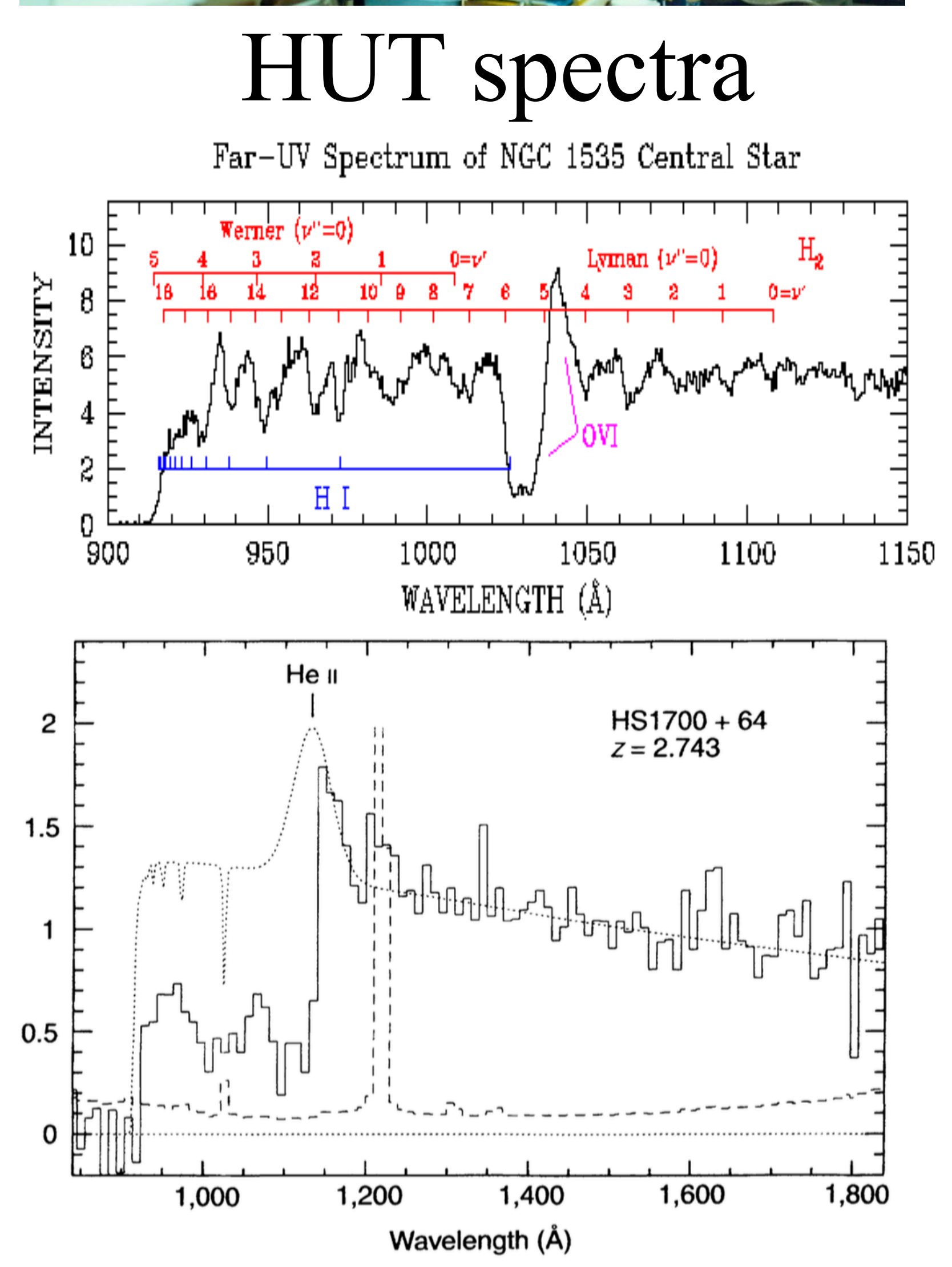
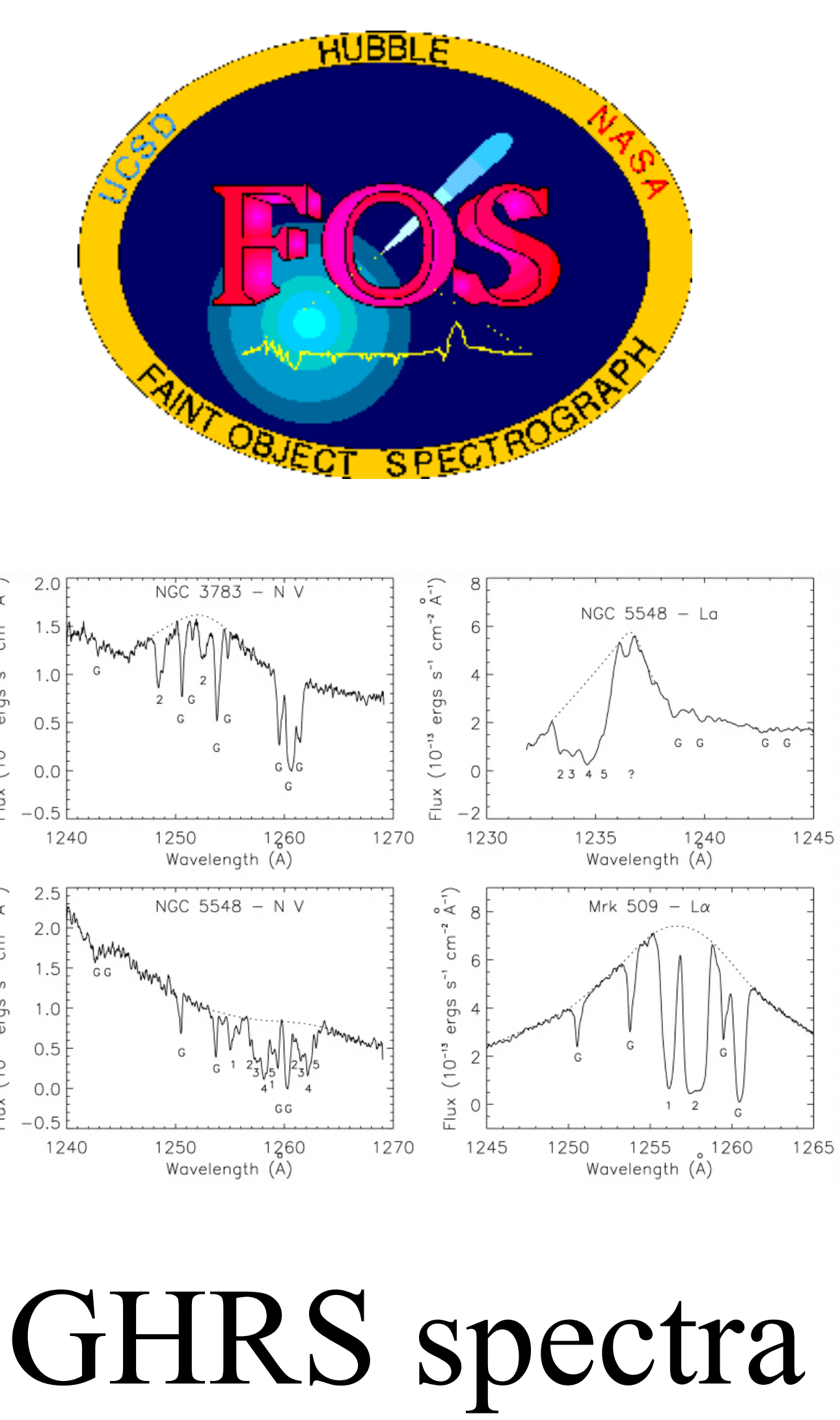


FIG. 1 Far-ultraviolet spectrum of quasar HS1700 + 64 observed with the Hopkins Ultraviolet Telescope, shown as a histogram with 10-Å bins. The dotted curve shows an extrapolation of the power-law spectrum ($F_{\nu} \propto \nu^{-1.0}$, where F_{ν} is the flux density at frequency ν) observed at wavelengths $>1,250 \text{ \AA}$, with an added emission feature for the He II 304 Å resonance line modelled as a gaussian (full width at half maximum, $14,500 \text{ km s}^{-1}$) at $z = 2.730$. Galactic reddening^{20,21} with $E_{B-V} = 0.02$ and interstellar hydrogen²⁸ Lyman series absorption for $N_{\text{H}} = 2 \times 10^{20} \text{ cm}^{-2}$ and $b = 10 \text{ km s}^{-1}$ have also been applied to the model. The extinction-corrected intensity of the He II 304 Å emission line in our spectrum is $5.4 \times 10^{-14} \text{ erg cm}^{-2} \text{ s}^{-1}$. This is 8.3% of the intensity of Ly α as observed in the MMT spectrum, a ratio consistent with the range of 0.07–0.23 predicted in models of broad-line clouds in quasars^{29,30}. The dashed line shows the statistical error at each wavelength bin. The horizontal dotted line gives a zero flux reference across the spectrum. The Gunn–Peterson absorption trough arising from intergalactic He II and the He II Lyman- α forest is evident, extending from the systemic redshift ($z = 2.743$) to the Galactic Lyman limit at $z = 2$.



GHR spectra