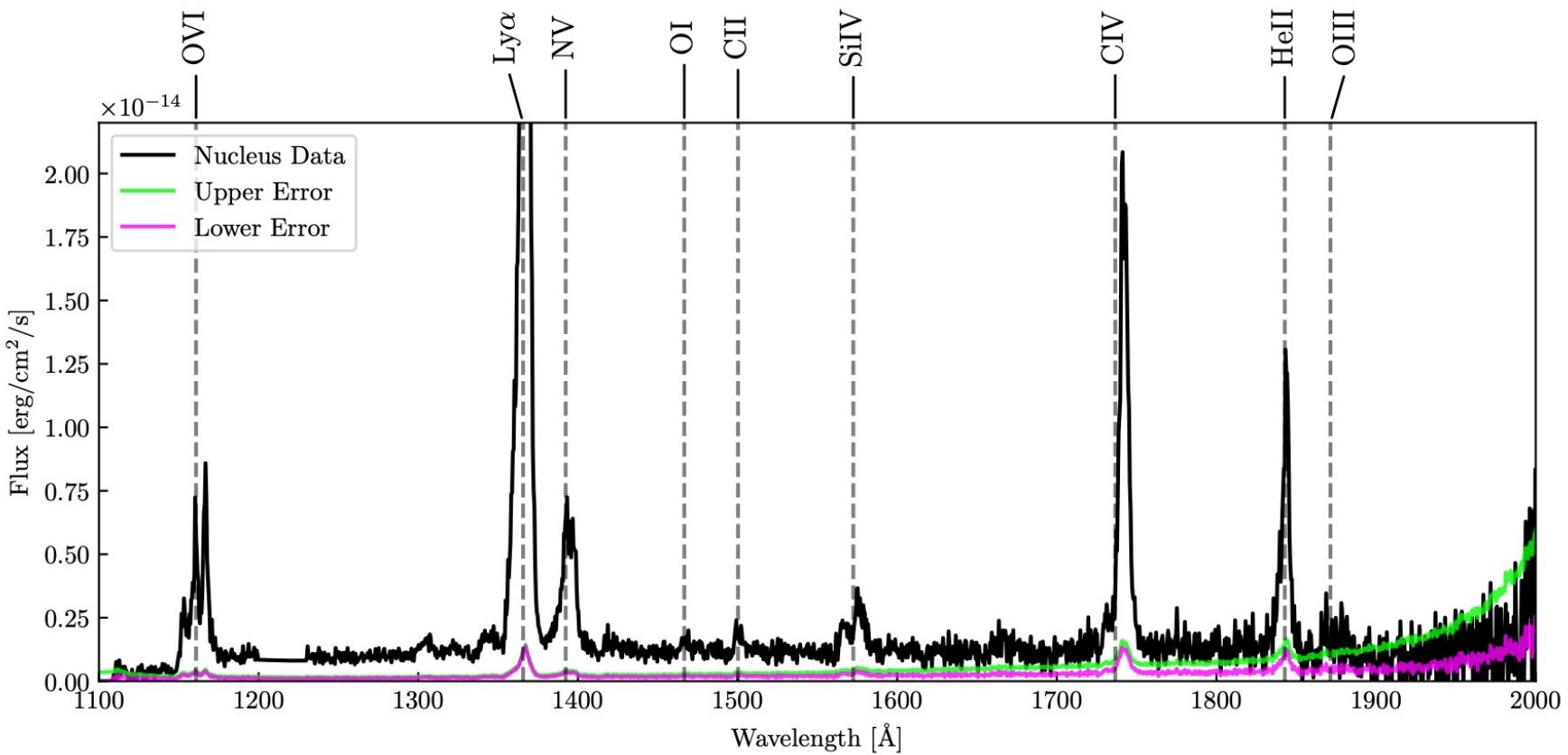


Nucleus

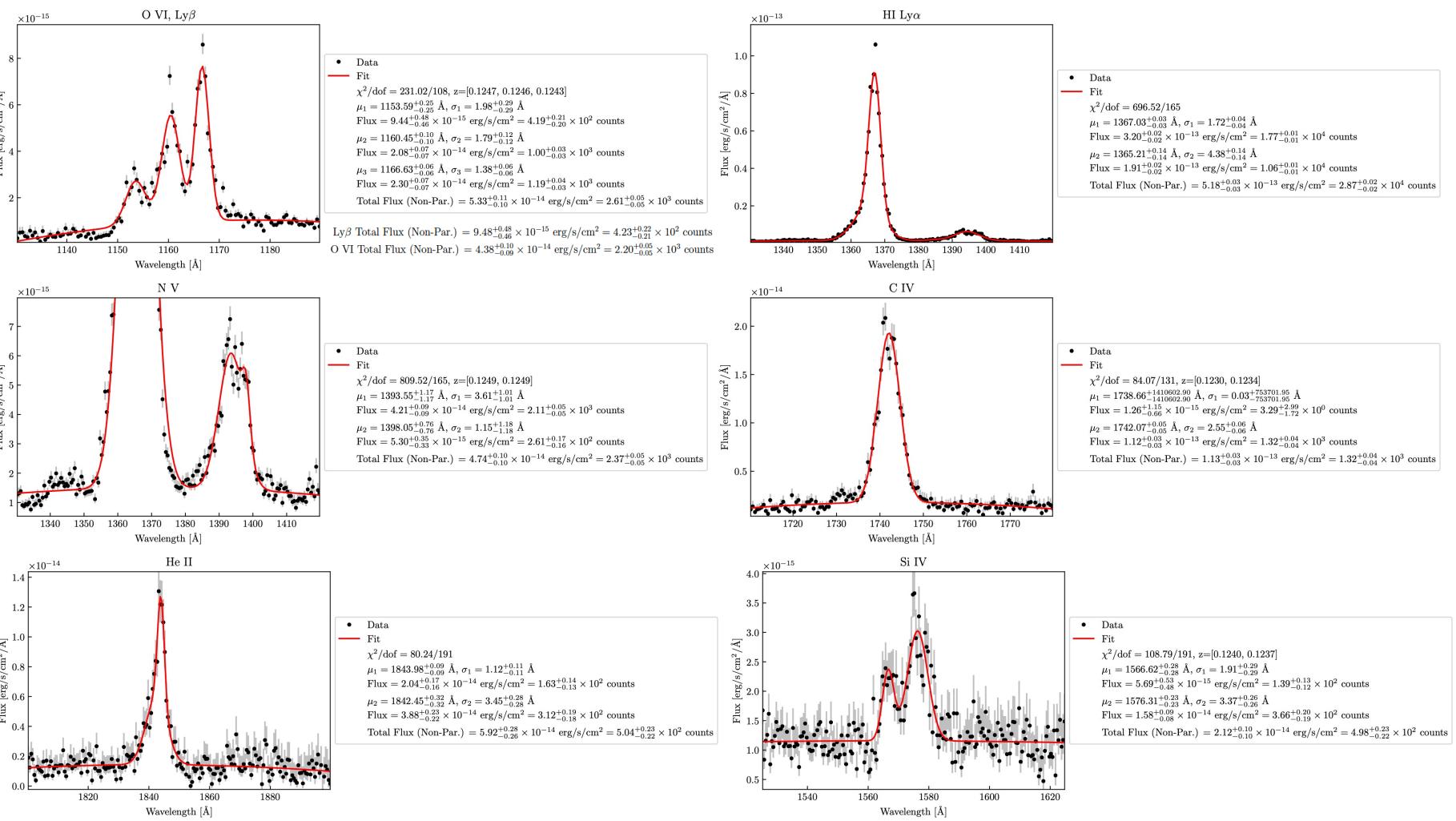
Nucleus spectrum

- Nucleus spectrum



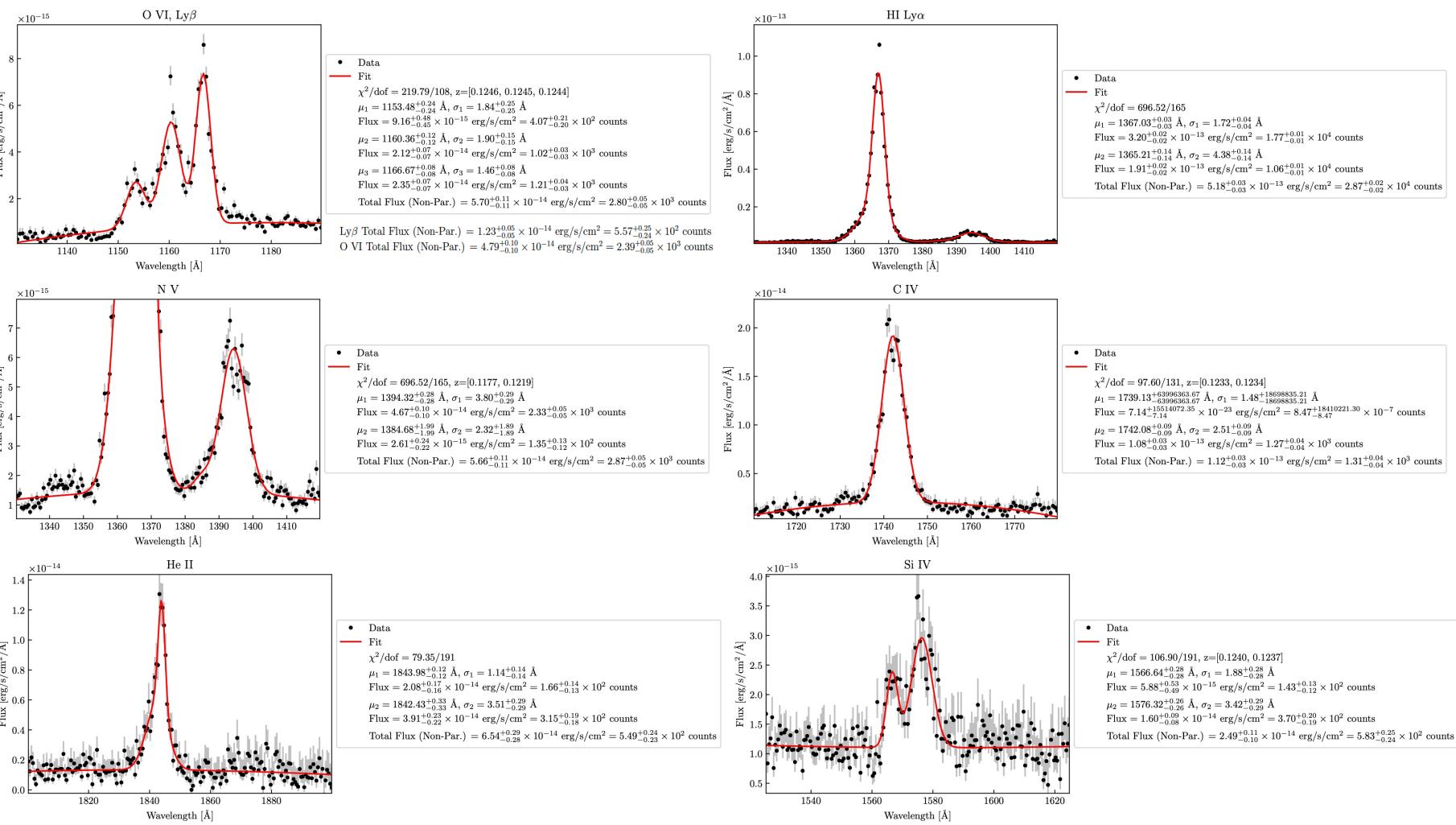
Nucleus Line Fluxes w fits

- No errors given to lmfit
- Quadratic continuum fit



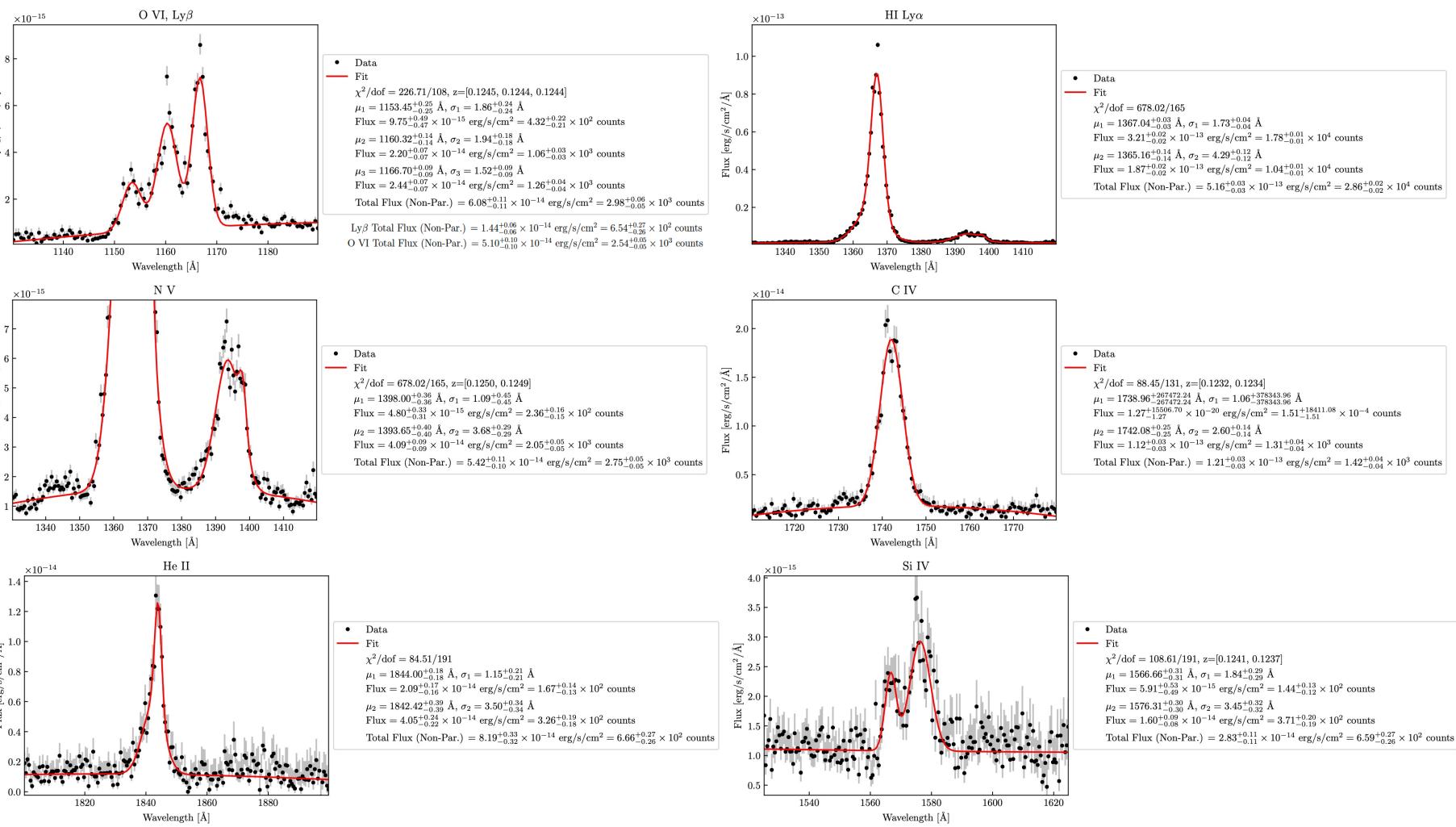
Nucleus Line Fluxes w fits

- Upper errors given to lmfit
- Quadratic continuum fit



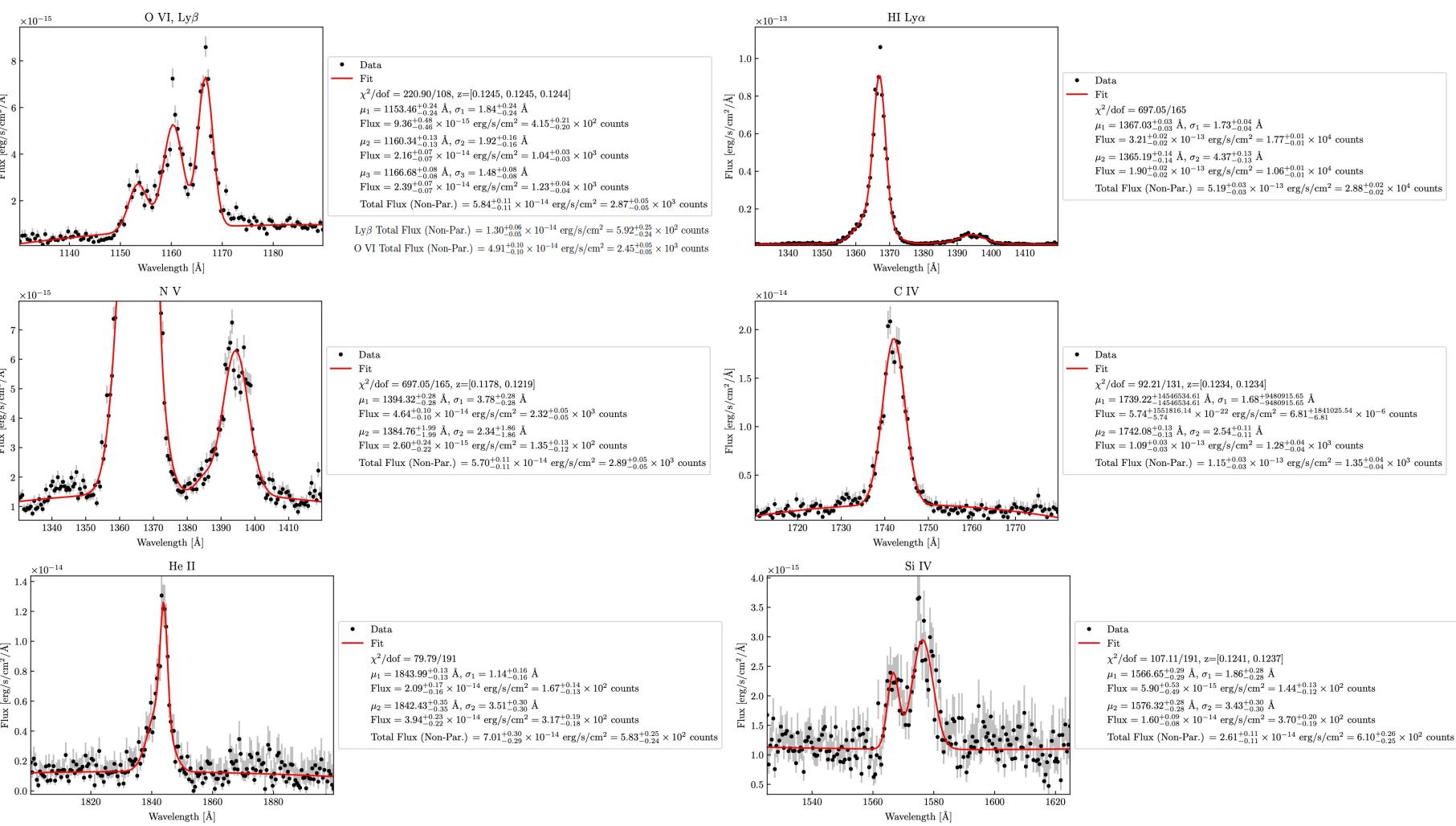
Nucleus Line Fluxes w fits

- Lower errors given to lmfit (when lower error=0, upper error used)
- Quadratic continuum fit



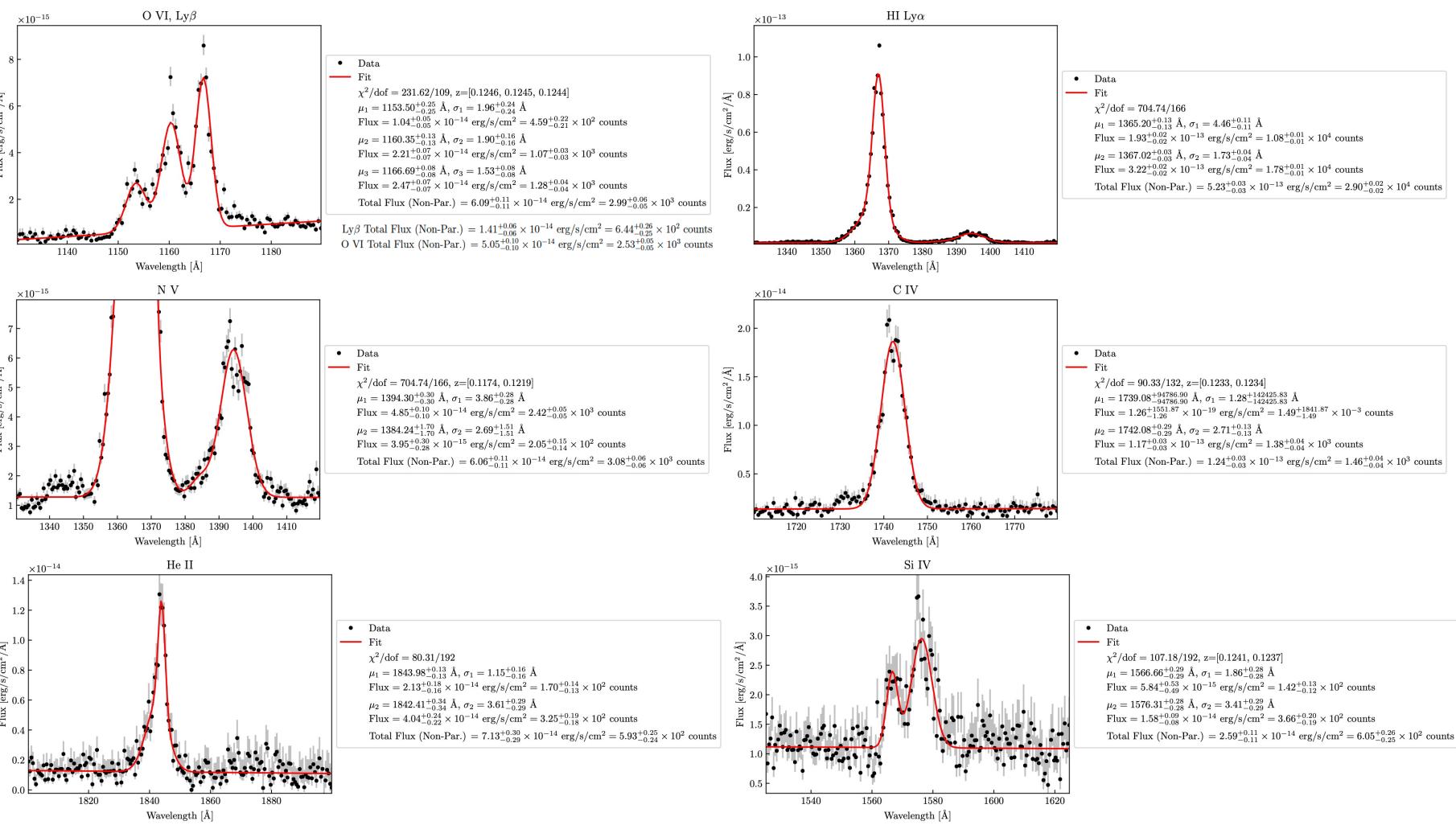
Nucleus Line Fluxes w fits

- Average errors given to lmfit
- Quadratic continuum fit



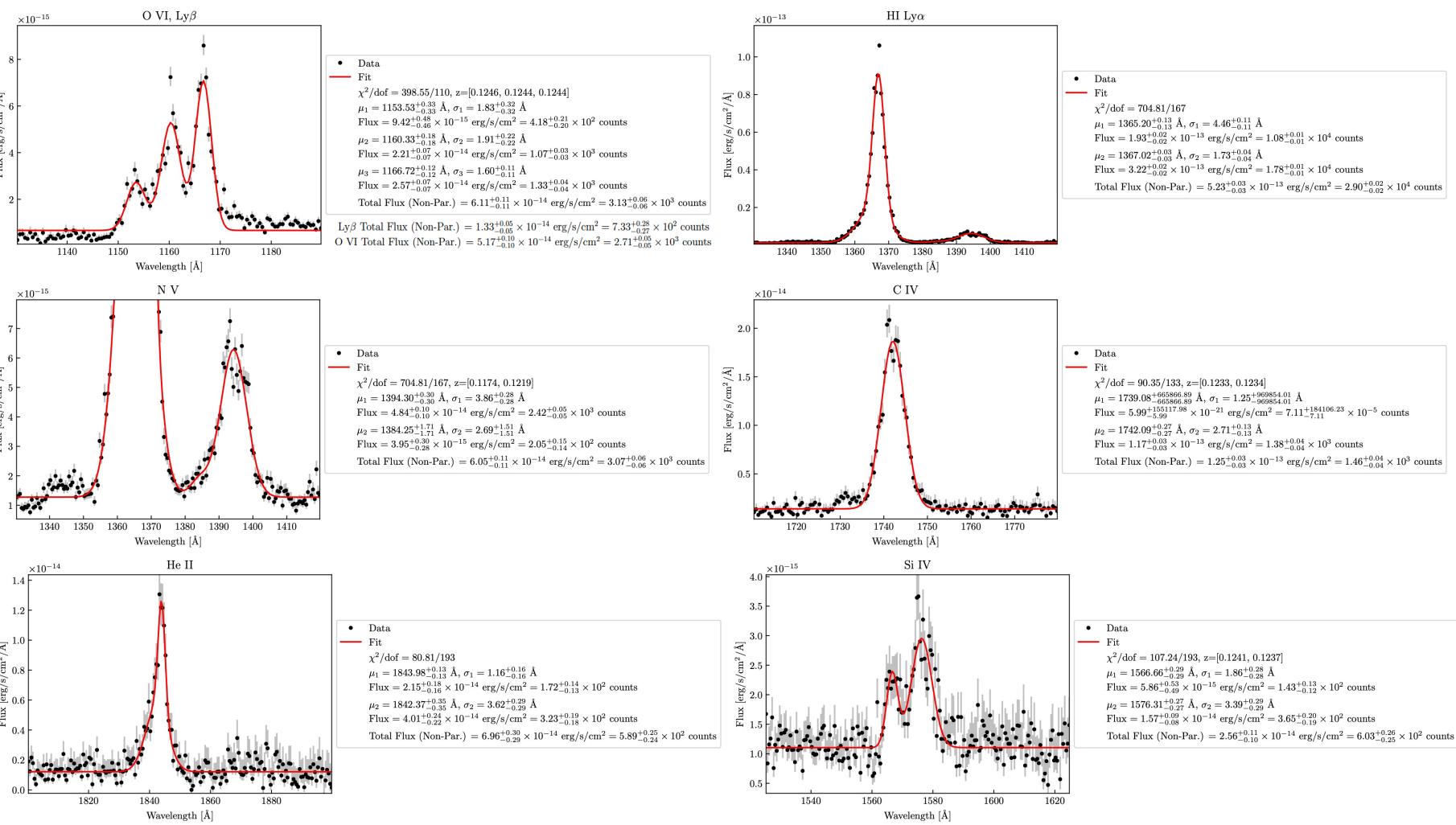
Nucleus Line Fluxes w fits

- Average errors given to lmfit
- Linear continuum fit



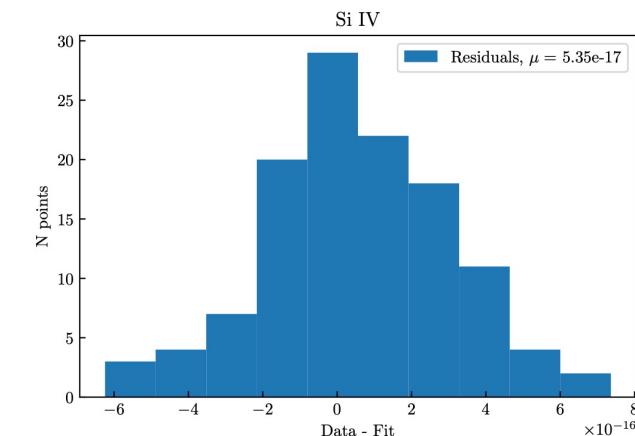
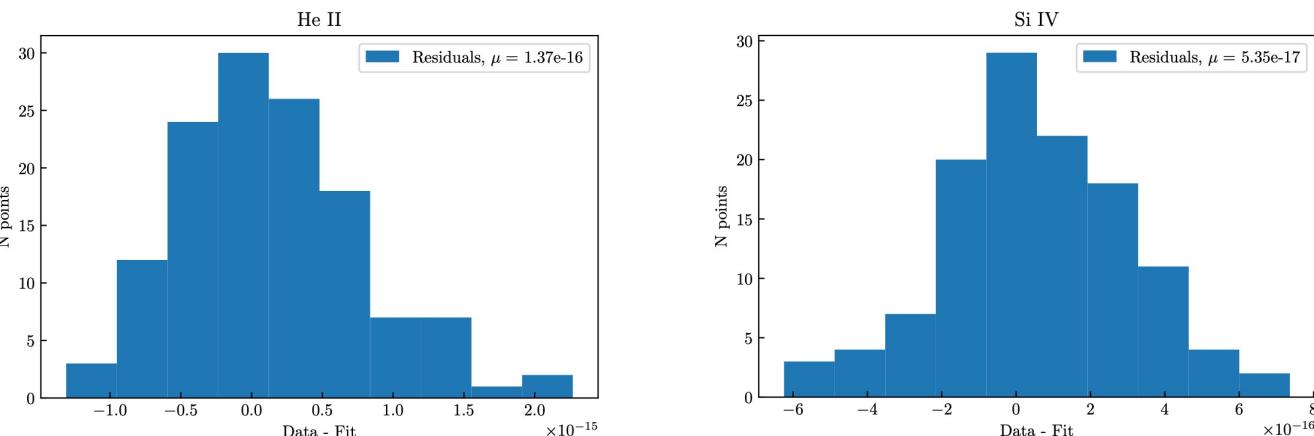
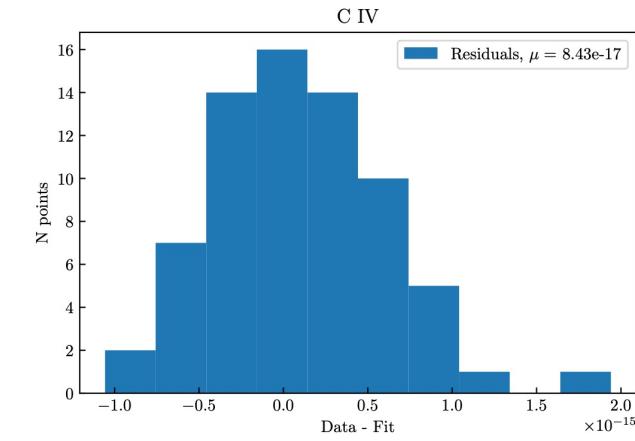
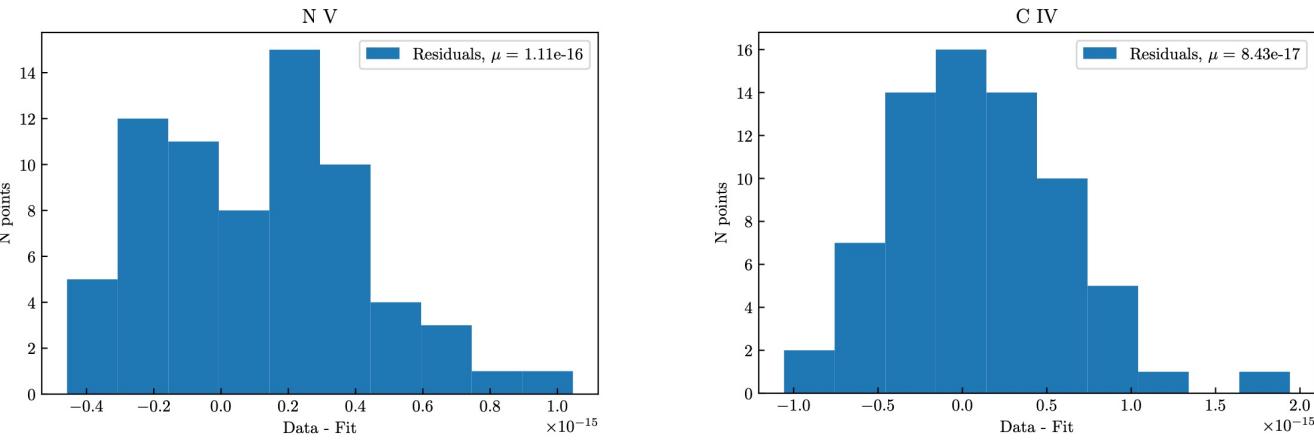
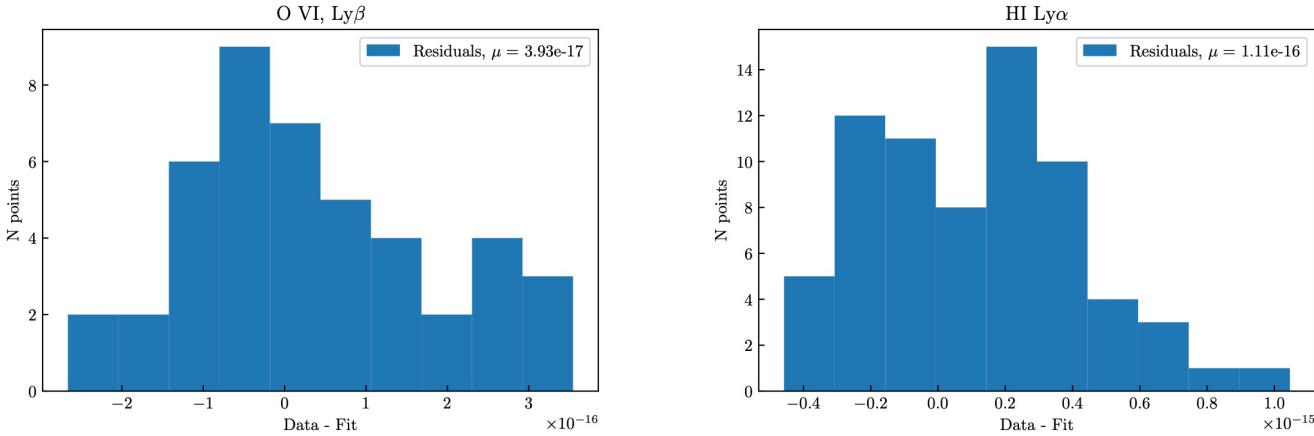
Nucleus Line Fluxes w fits

- Average errors given to lmfit
- Constant continuum fit



Nucleus Residuals

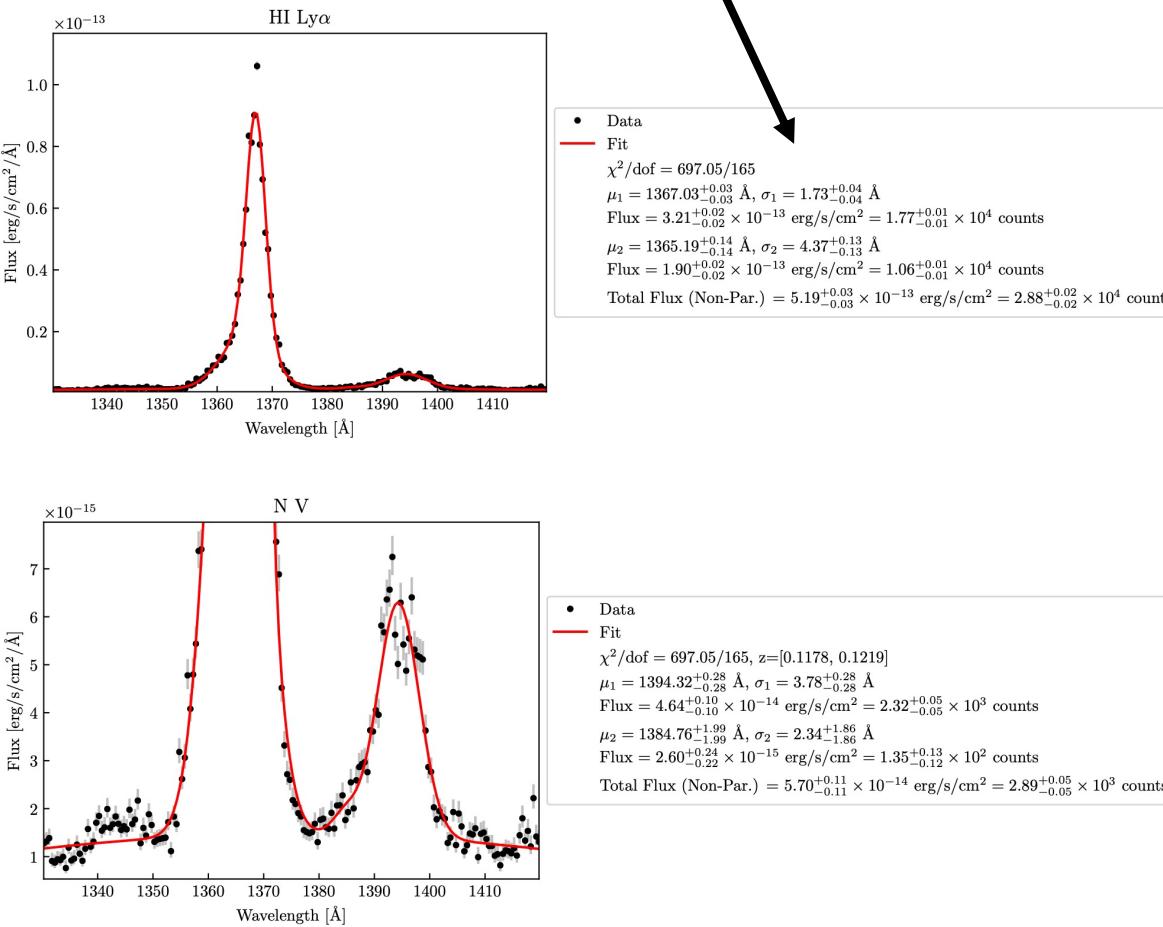
- Average errors given to lmfit
- Quadratic continuum fit



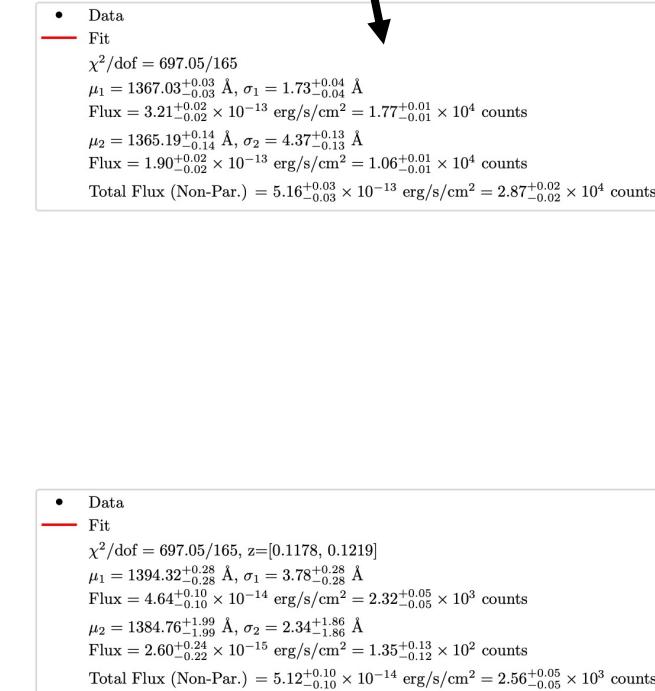
N V, Ly α flux check

- Average errors given to lmfit
- Quadratic continuum fit

Calculating total non parametric flux for N V (Ly α) by subtracting continuum fit + Ly α (N V) fit from data, then integrating data over entire region ($\lambda \sim 1330 - 1420 \text{ \AA}$)



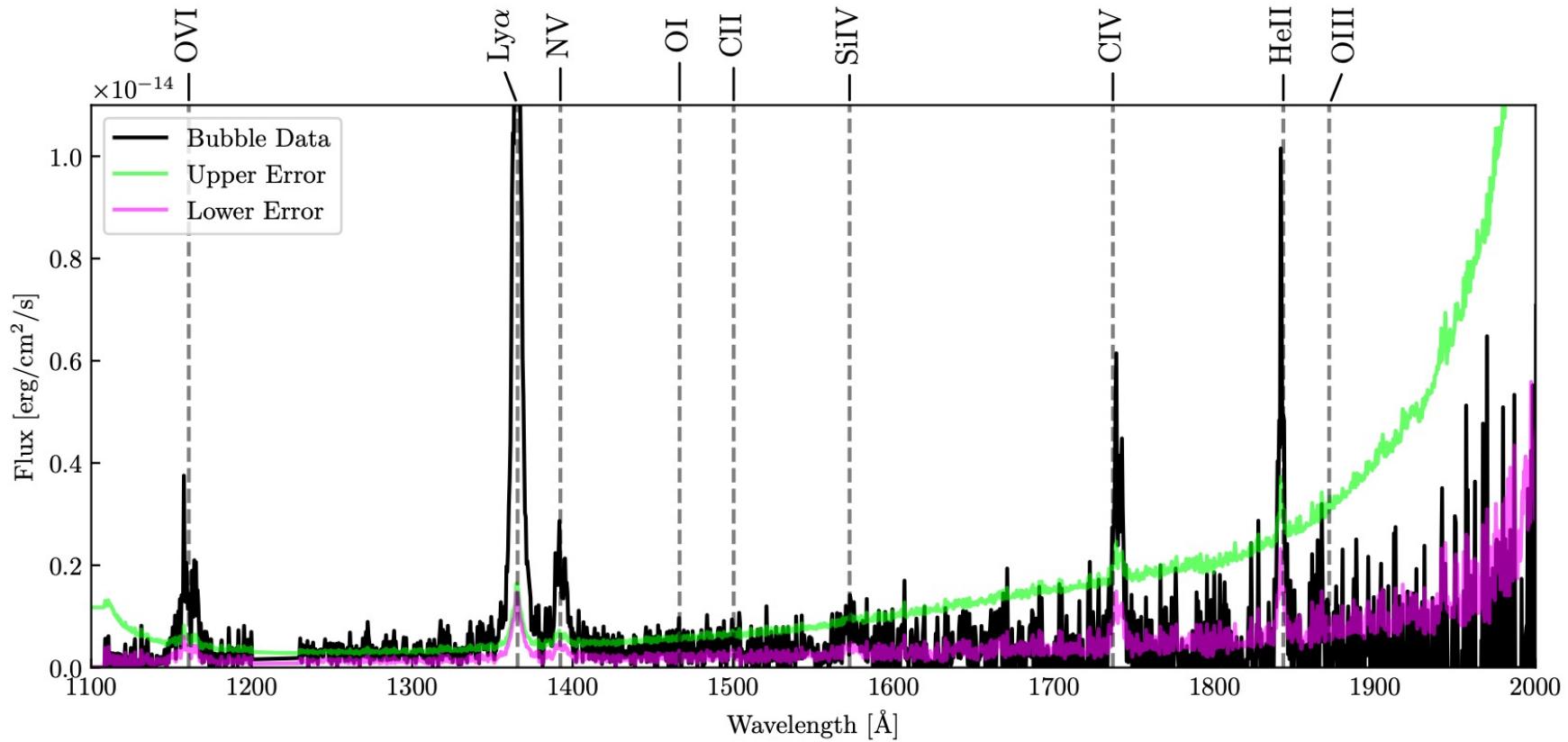
Calculating total non parametric flux for N V (Ly α) by subtracting continuum from data, then integrating data over $\lambda \sim 1380 - 1420 \text{ \AA}$ ($\lambda \sim 1330 - 1380 \text{ \AA}$)



Bubble

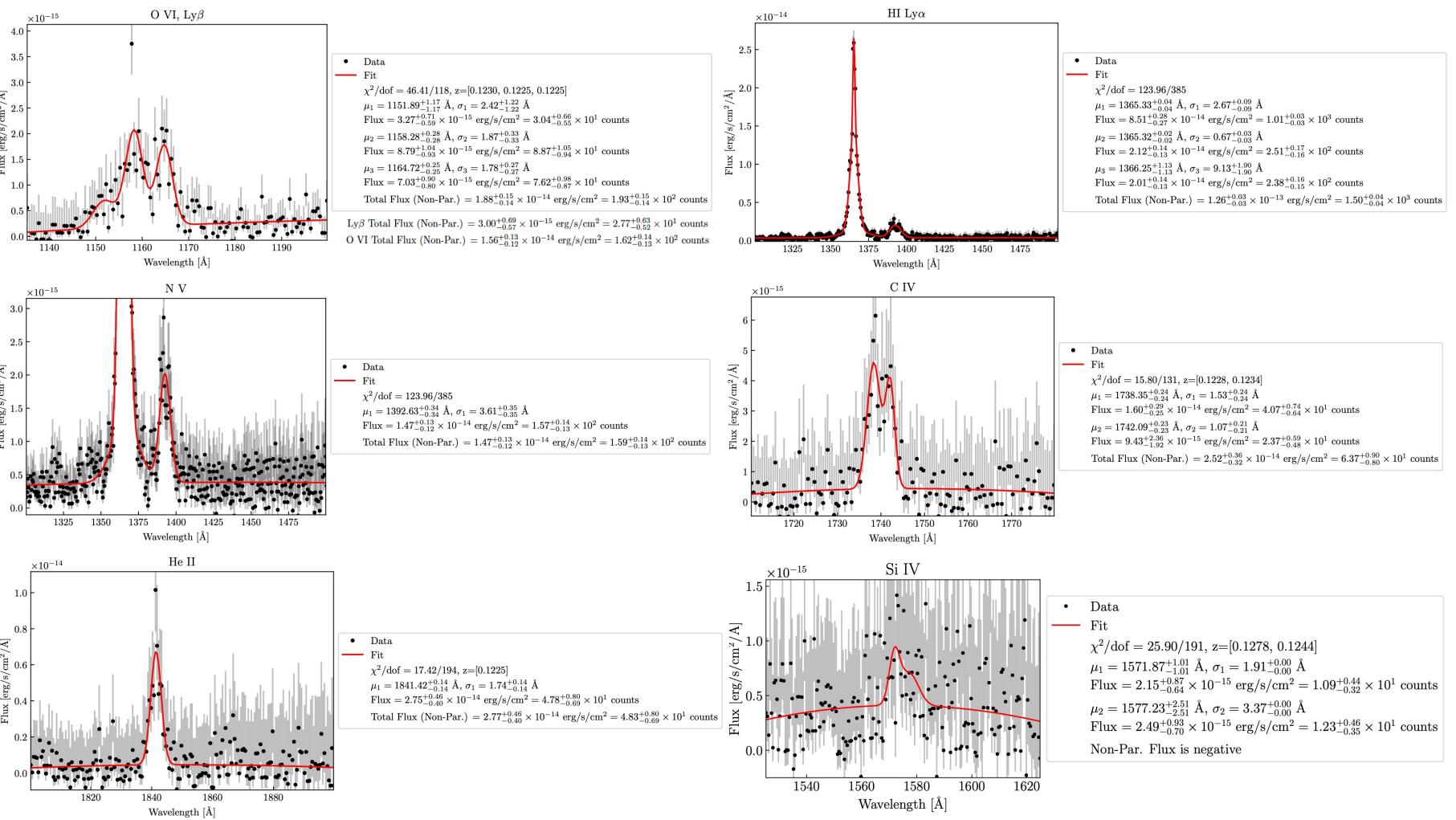
Final Plots

- Nucleus spectrum



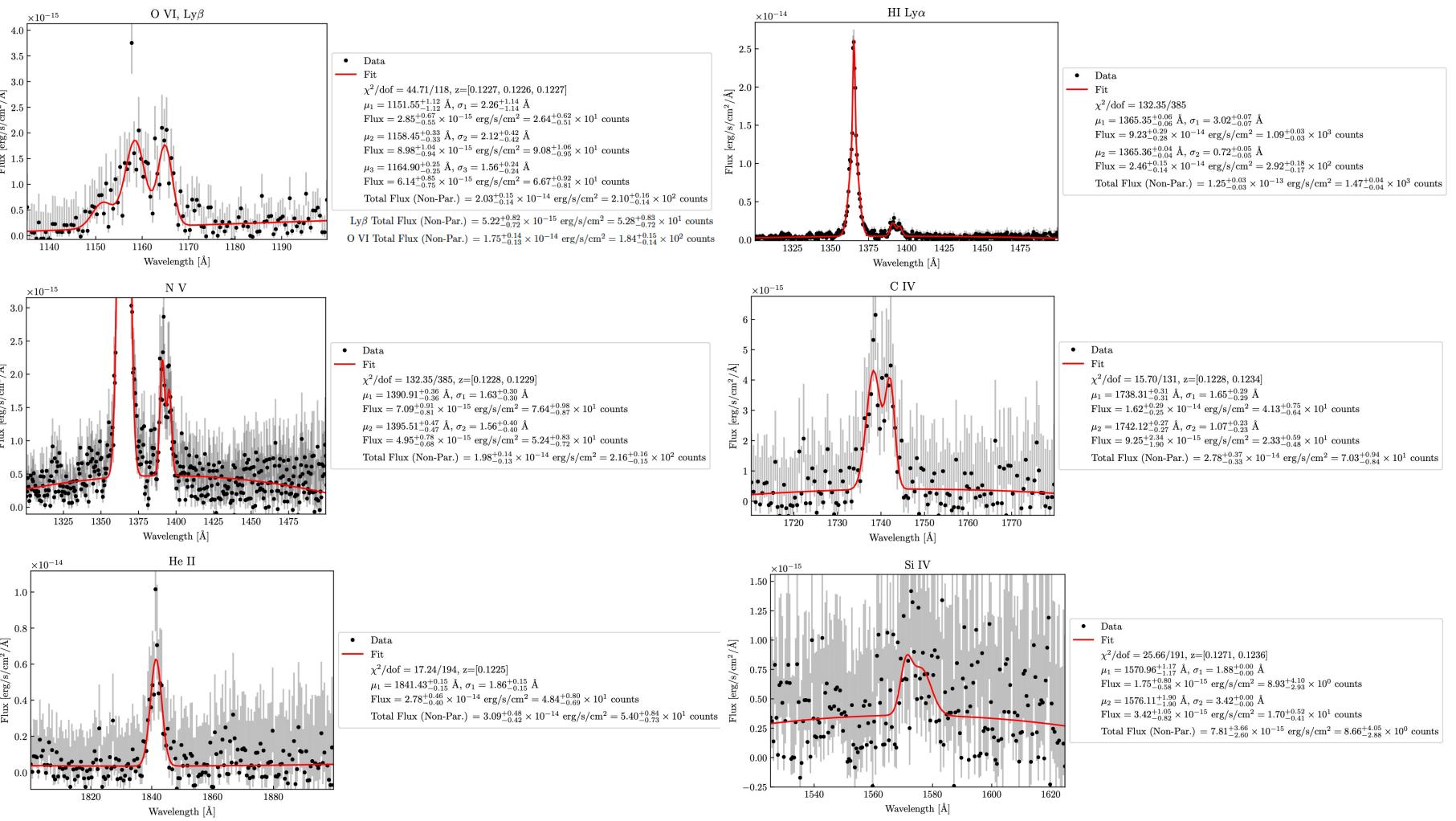
Bubble Line Fluxes w fits

- No errors given to lmfit
- Quadratic continuum fit
- Fixing Si IV gaussian widths to nucleus values



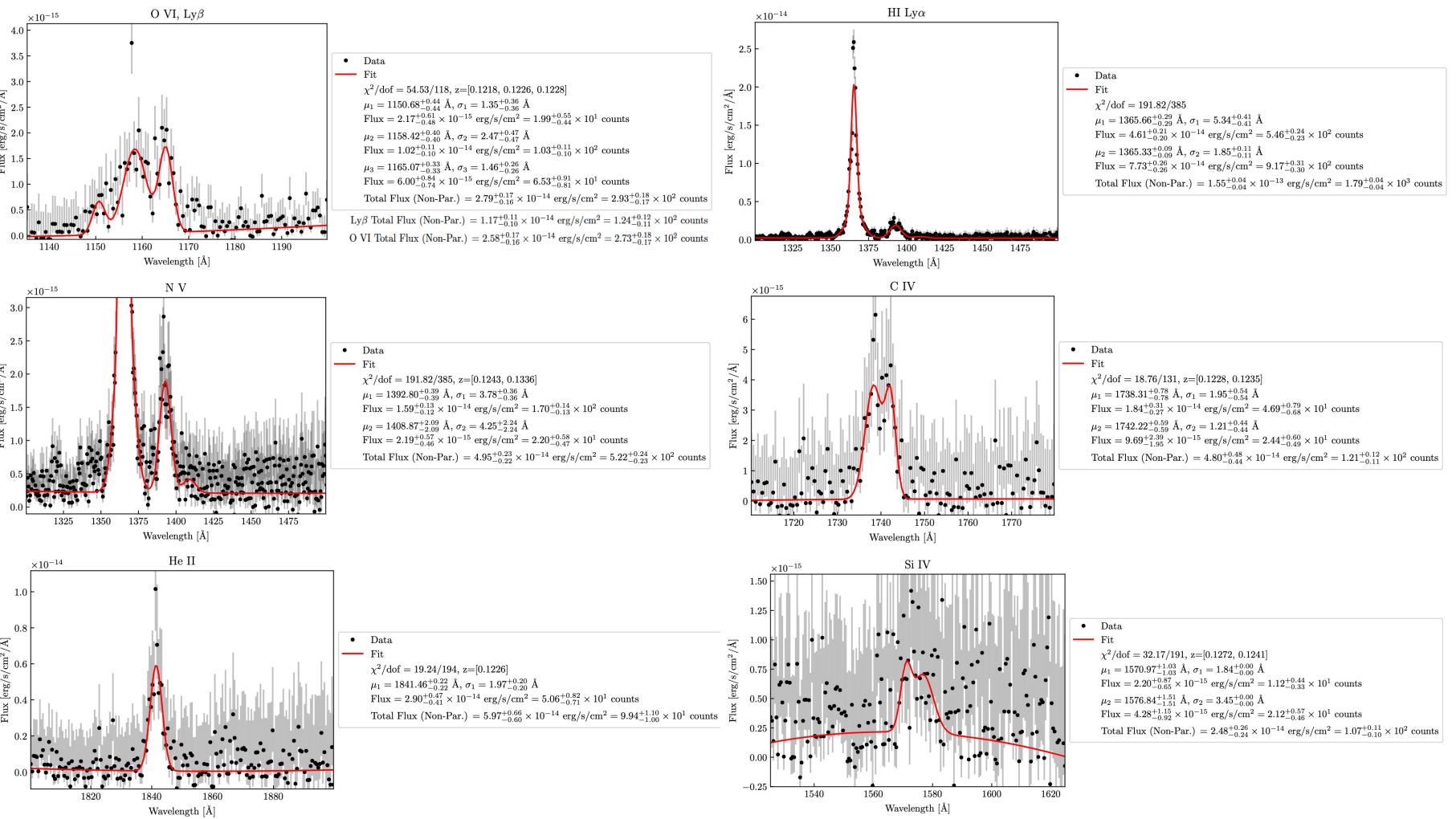
Bubble Line Fluxes w fits

- Upper errors given to lmfit
- Quadratic continuum fit
- Fixing Si IV gaussian widths to nucleus values



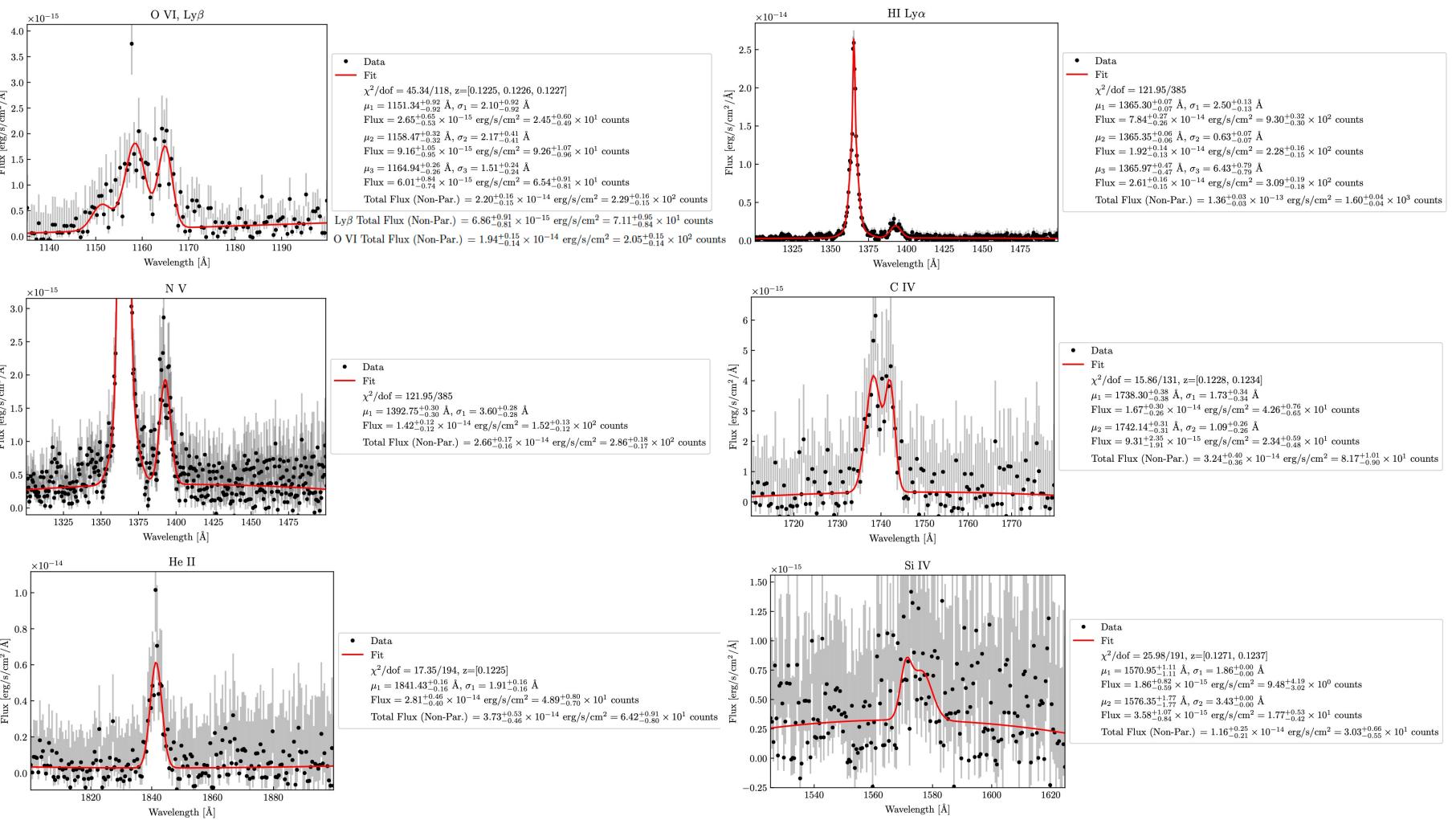
Bubble Line Fluxes w fits

- Lower errors given to lmfit (when lower error=0, upper error used)
- Quadratic continuum fit
- Fixing Si IV gaussian widths to nucleus values



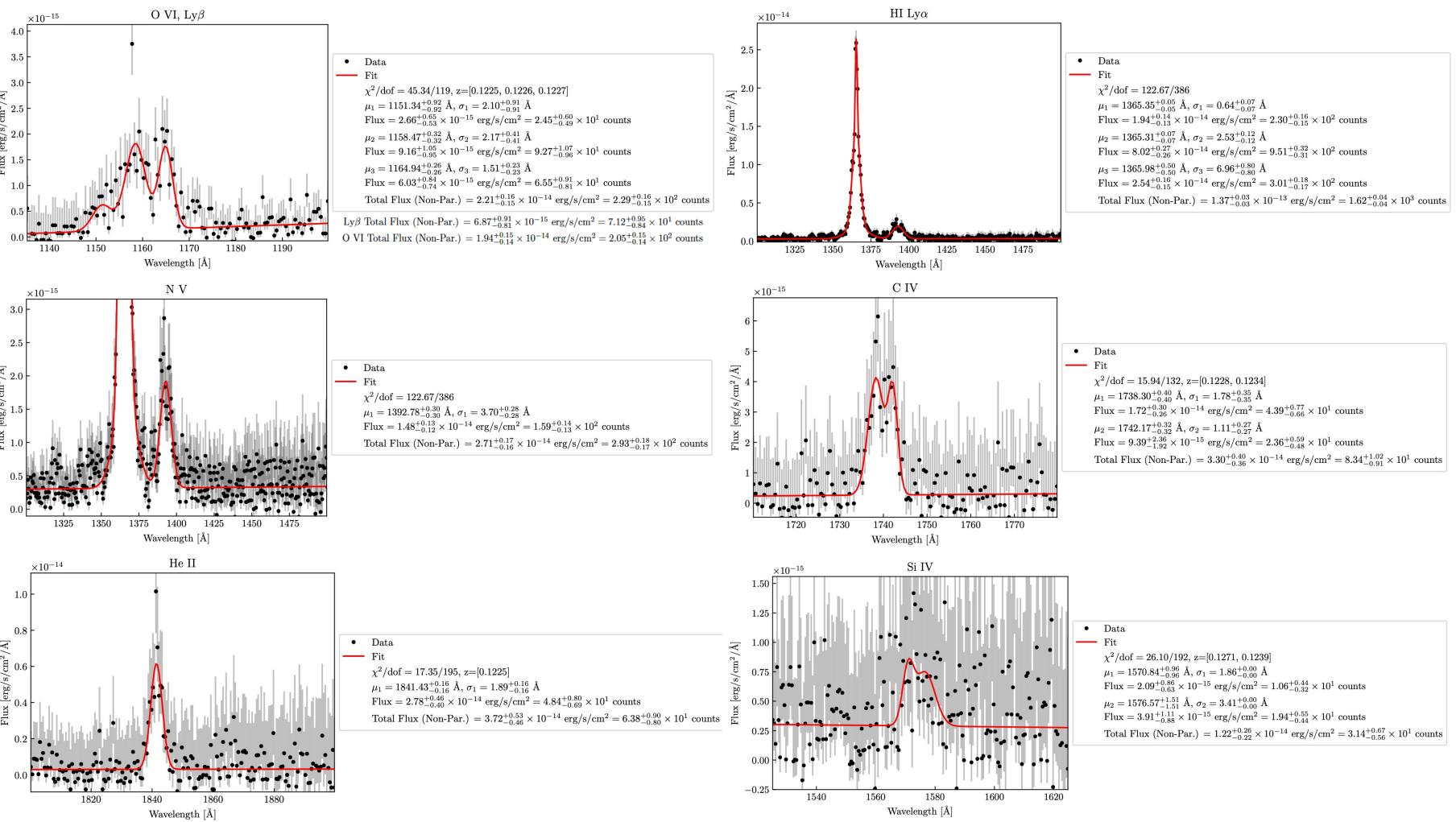
Bubble Line Fluxes w fits

- Average errors given to lmfit
- Quadratic continuum fit
- Fixing Si IV gaussian widths to nucleus values



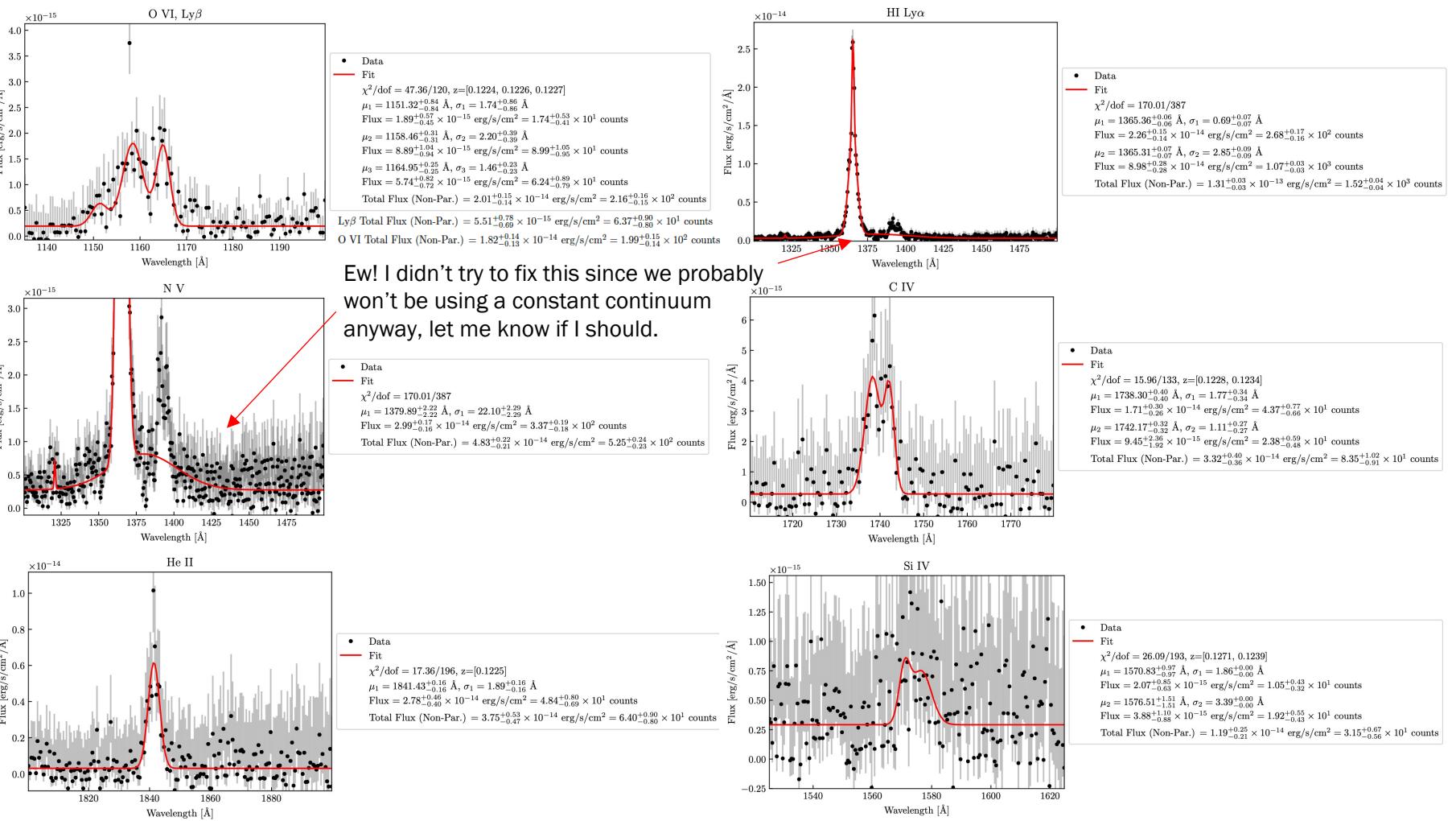
Bubble Line Fluxes w fits

- Average errors given to lmfit
- Linear continuum fit
- Fixing Si IV gaussian widths to nucleus values



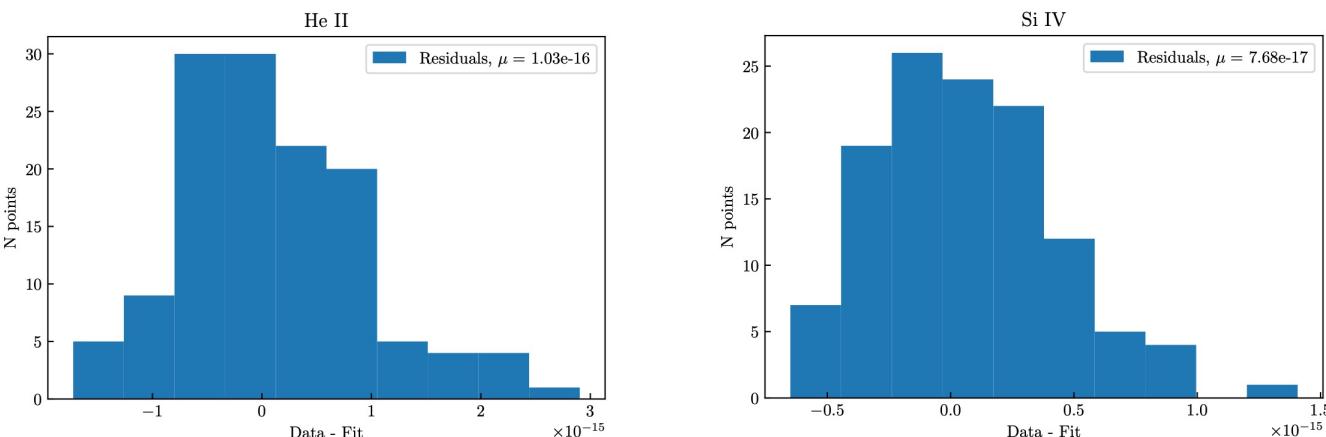
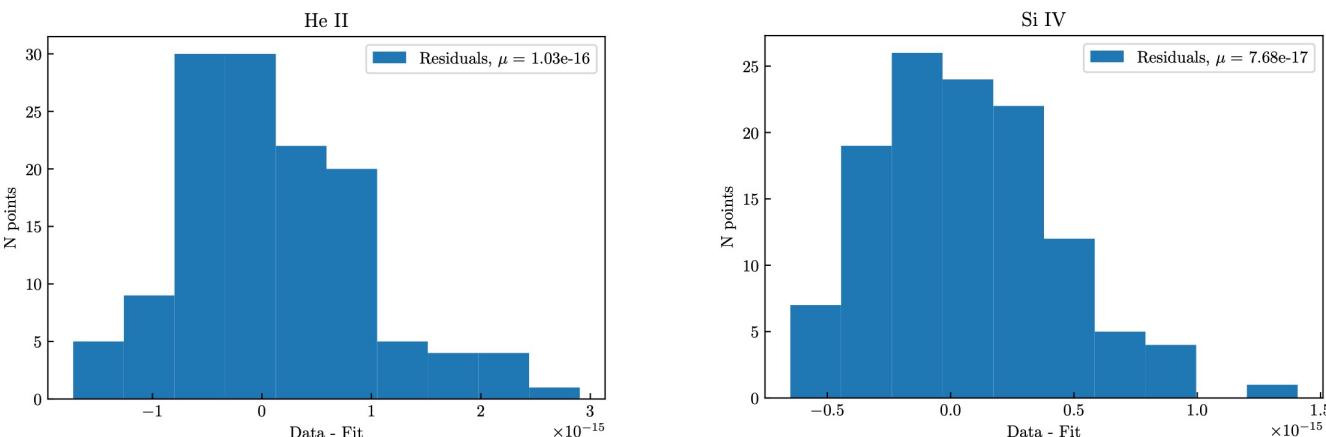
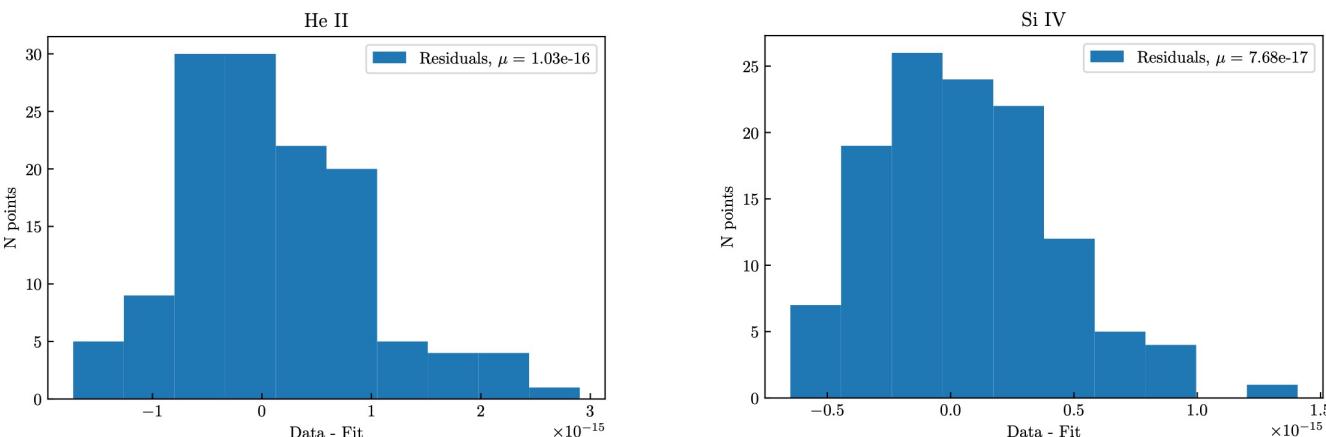
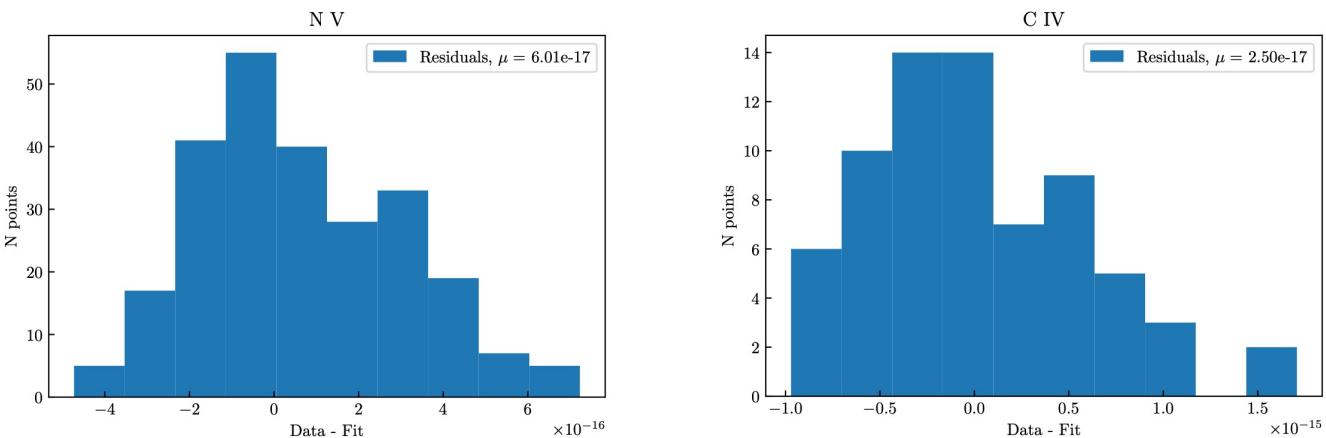
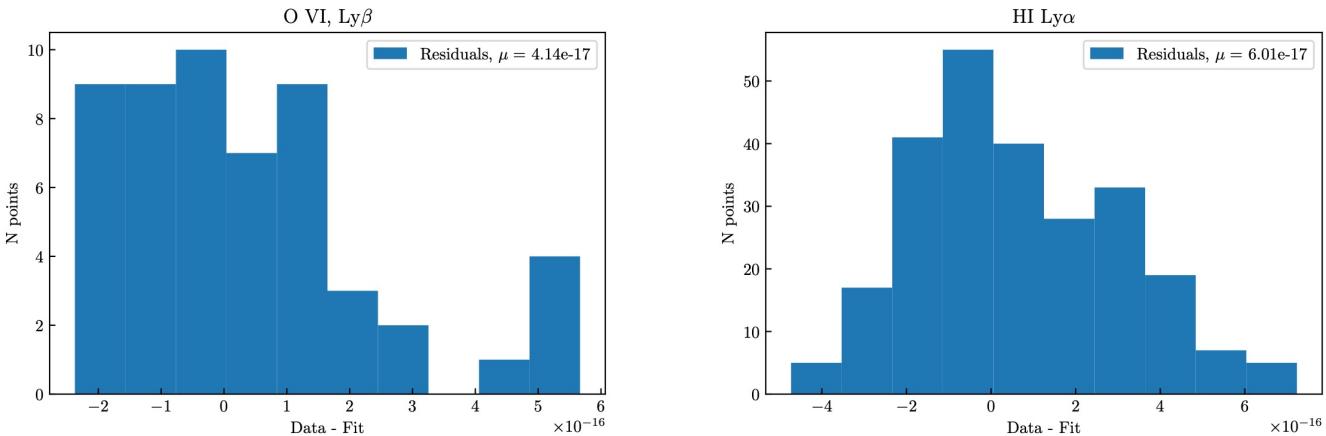
Final Plots

- Bubble Line Fluxes w fits
- TWOZONE settings from aperture optimization
- Average errors given to lmfit
- Constant continuum fit
- Fixing Si IV gaussian widths to nucleus values



Bubble Residuals

- Average errors given to lmfit
- Quadratic continuum fit
- Residuals
- Fixing Si IV gaussian widths to nucleus values



Nucleus and Bubble

Nucleus and Bubble Lines w fits

- Average errors given to lmfit
- Quadratic continuum fit
- Fixing bubble Si IV gaussian widths to nucleus values

