

# pyNorm data model

- `ion` - Ion
- `wni` - iNorm wavelength label
- `wavc` - Central wavelength
- `fval` - f-value
- `gamma` - Damping constant  $\gamma$
- `redshift` - Assumed absorber redshift [redundant with `z`]
- `targname` - Object name used for observations [in header]
- `object` - Object name [preferred, e.g., from Simbad; may be different than `targname`]
- `vlsr` - LSR velocity correction
- `RA` - Right ascension
- `Dec` - Declination
- `gl` - Galactic latitude
- `gb` - Galactic longitude
- `vel` - Velocity [LSR?]
- `flux` - Flux
- `eflux` - Flux error
- `wave` - Wavelength array [LSR frame?]
- `contin` - Continuum
- `contin_err` - Error in the continuum points
- `contin_order` - Order of fitted Legendre polynomial
- `contin_coeff` - Coefficients of fitted Legendre polynomial
- `contin_mask_bits` - Continuum mask (bits: 1 = use)
- `contin_mask_bool` - Continuum mask (Boolean)
- `contin_v1` - Starting velocities of continuum regions
- `contin_v2` - Stopping velocities of continuum regions
- `vnorm` - Velocity for normalized spectrum
- `fnorm` - Flux for normalized spectrum
- `fnorm_err` - Error of normalized spectrum
- `fnorm_err_contin` - Continuum error of normalized spectrum
- `fnorm_err_stat` - Statistical error of normalized spectrum
- `Nav` - Apparent column density profile,  $N_a(v)$  [ $\text{cm}^{-2}$ ]
- `Nav_err` - Apparent column density error
- `Nav_sat` - Apparent column density saturation flag (True = saturated)
- `SNR` - Median signal-to-noise ratio (SNR) in continuum regions.
- `v1` - Lower [left] integration limit
- `v2` - Upper [right] integration limit
- `EW` - Equivalent width [mÅ]
- `EW_err` - Equivalent width total error [mÅ]
- `EW_err_stat` - Equivalent width statistical error [mÅ]
- `EW_err_cont` - Equivalent width continuum error [mÅ]

- `EW_err_zero` - Equivalent width zero point error [mÅ]
- `EW_cumulative` - Cumulative EW over the line profile [mÅ]
- `ncol_linearCoG` - log N from linear CoG
- `ncol_linear2sig` - Detection limit at  $3\sigma$  from linear CoG
- `ncol_linear3sig` - Detection limit at  $3\sigma$  from linear CoG
- `detection_2sig` - Flag indicating EW is detected at 2sigma [True/False]
- `detection_3sig` - Flag indicating EW is detected at 3sigma [True/False]
- `ncol` - Log10 Na (apparent column density)
- `ncol_err_lo` - Negative error in log10 Na (apparent column density)
- `ncol_err_hi` - Positive error in log10 Na (apparent column density)
- `flag_sat` - Flag denoting presence of obvious saturation [True/False]
- `va` - Average velocity [first moment] [km/s]
- `va_err` - Average velocity [first moment] error [km/s]
- `ba` - Velocity width [second moment] b-value [km/s]
- `ba_err` - Velocity width [second moment] b-value error [km/s]
- `m3` - Skewness [third moment]
- `m3_err` - Skewness [third moment] error
- `dv90` -  $\Delta v_{90}$ : 90% of EW [km/s]
- `v90a` -  $v_{90,a}$ : 5% of EW velocity limit [km/s]
- `v90b` -  $v_{90,b}$ : 95% of EW velocity limit [km/s]

In [ ]: