Re-Reducing the Keck/DEIMOS Stellar Archive

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I am re-reducing the Keck/DEIMOS archive with improved 2D and 1D reductions.

Keck/DEIMOS Archive includes:

35 Milky Way dwarf satellites

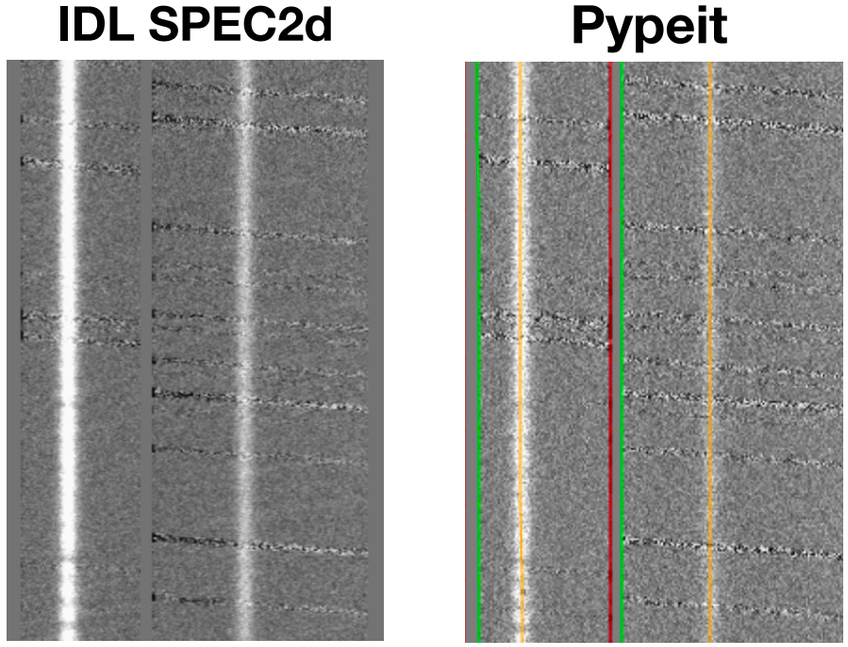
30 Milky Way globular clusters

38 M31 dwarf satellites

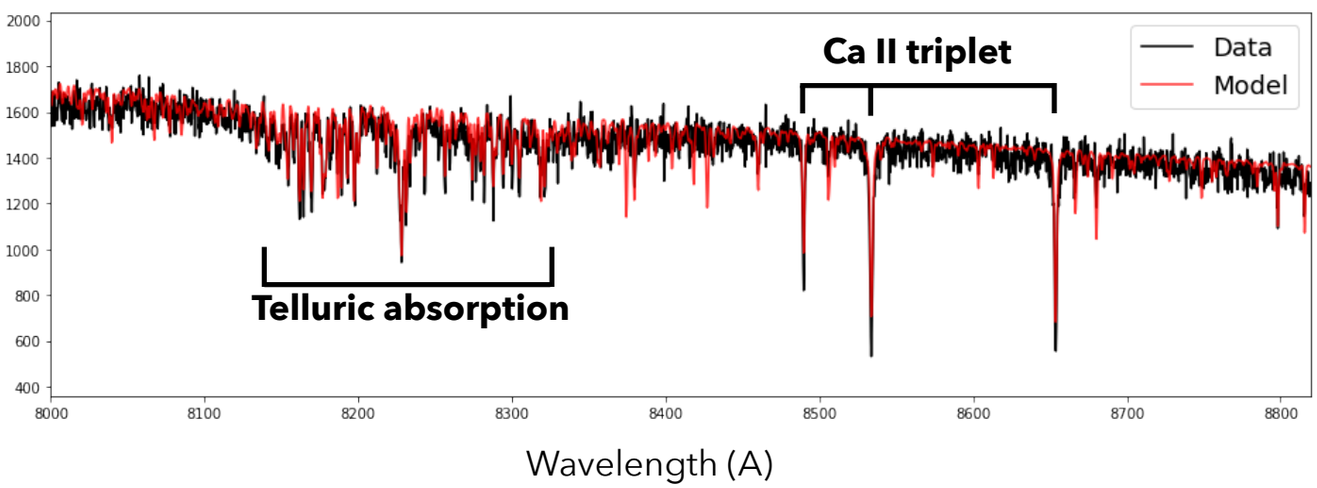
>550 unique pointings

>50,000 individual spectra

2D Redux using Pypeit:
Pypeit is a Python based data reduction pipeline written by X. Prochaska, J. Hennawi etal.



1D velocity analysis: Full forward modeling at exposure level.
Synthetic telluric absorption modeling.
Improved noise model.



Final data Products will Include:

- Velocities and error distributions.
- EW-based metallicity indicators
- Membership probabilities
- Matched photometry (CFHT, DECaLS)