

A Question: Do all Active Galactic Nuclei (AGN) vary with time?

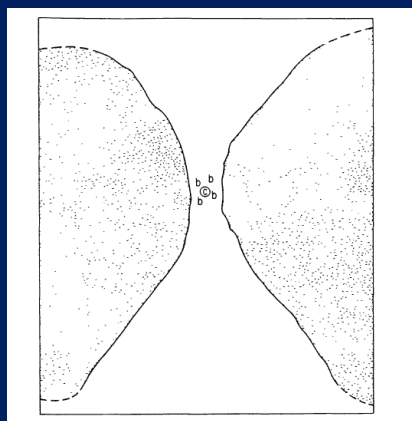
- Two main types in the optical: 1 (broad lines) and 2 (narrow lines)
- Both are expected to harbor supermassive black hole
- Yet their optical spectra look different
- AGN unified model offers an answer

broad line region + continuum generating region are obscured in narrow-line AGNs

- Continuum of narrow-line AGNs should not vary, if the unified model is true

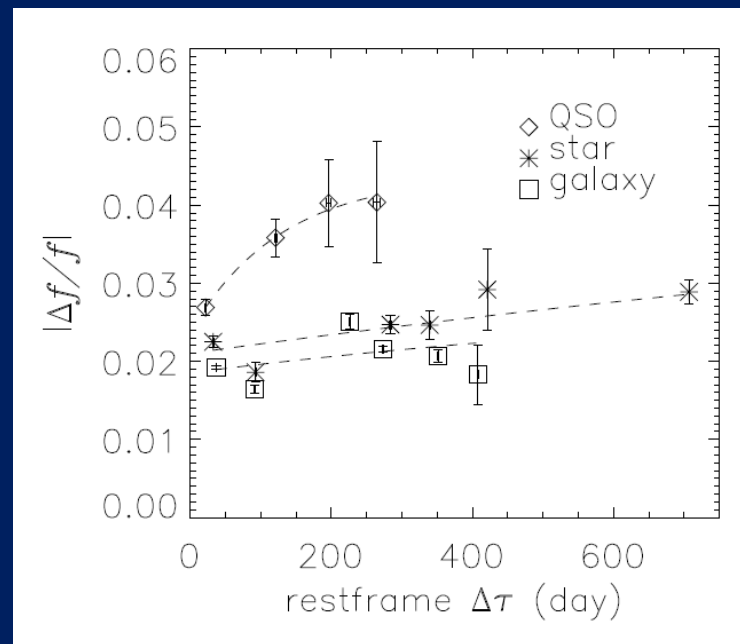


Broad line AGN



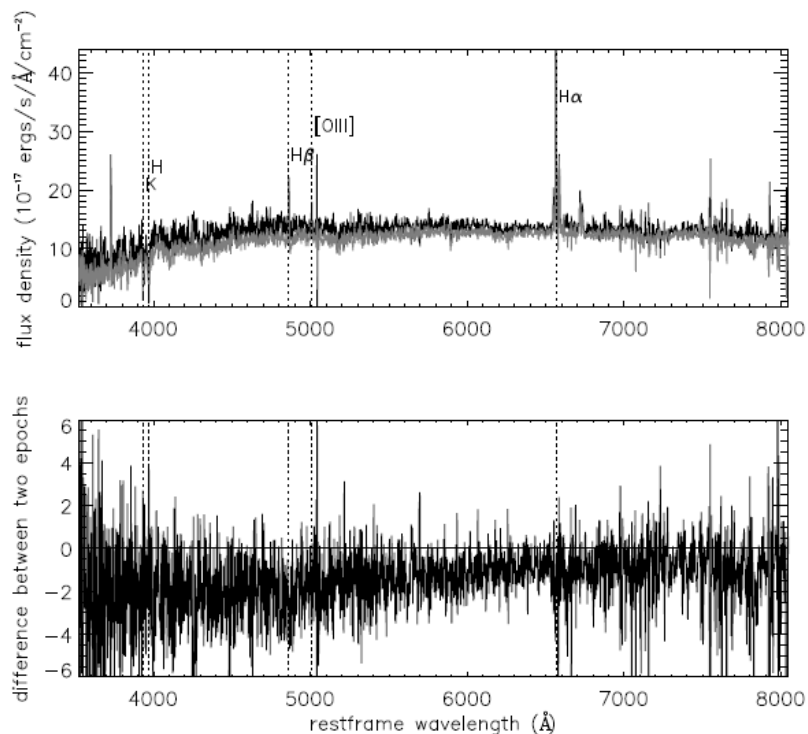
(Antonucci 03)

Narrow line AGN

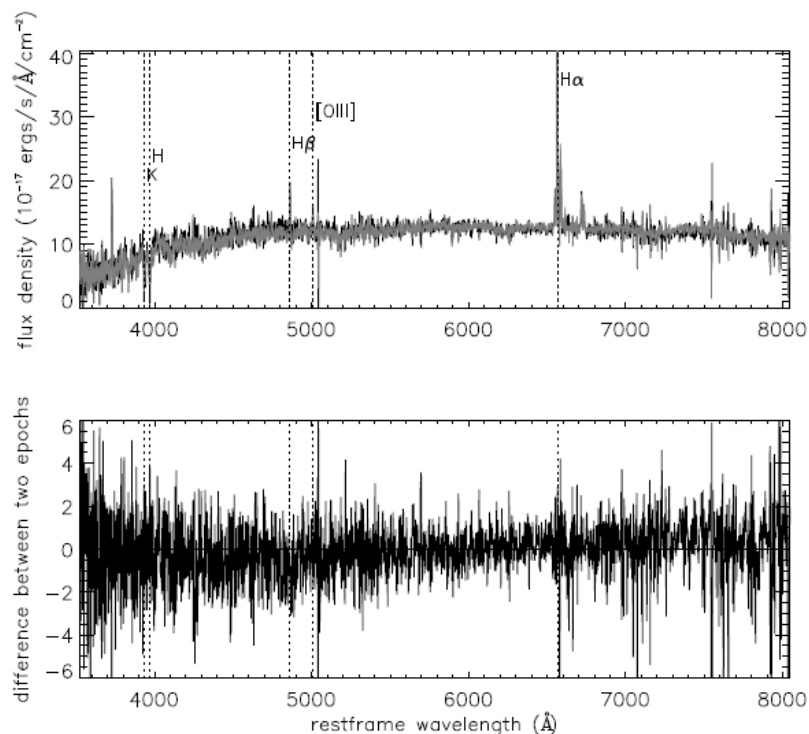


Spectrophotometric Calibration in Multi-Epoch Data – SDSS DR6

Before



After



(Yip et al. 09 AJ in press)