HST/ACS Coronagraphic Observations of the HD 163296 Circumstellar Disk: Evidence of Time-Variable Self-Shadowing?


- ACS F435W, F606W, F814W
- $r^{-3}$ radial SB -> flat outer disk
- disk (V-I) color, 0.8, is redder than than the stellar (V-I) color, 0.15

Evidence of Scattered Light Variability

1. Visibility of ansa(e) features
2. Relative SB variability of ansa(e)
3. SB variability of disk (at 3 arcsec)
4. Intrinsic polarization variability

Interpretation

Variable inflation of the inner disk wall creates variable self-shadowing of the outer disk region