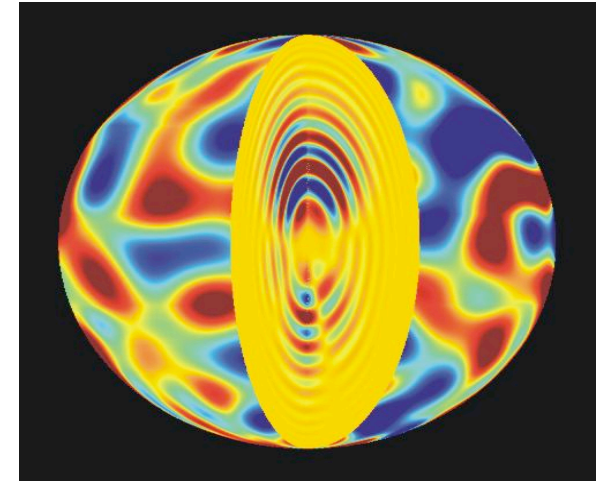


Science Rationale

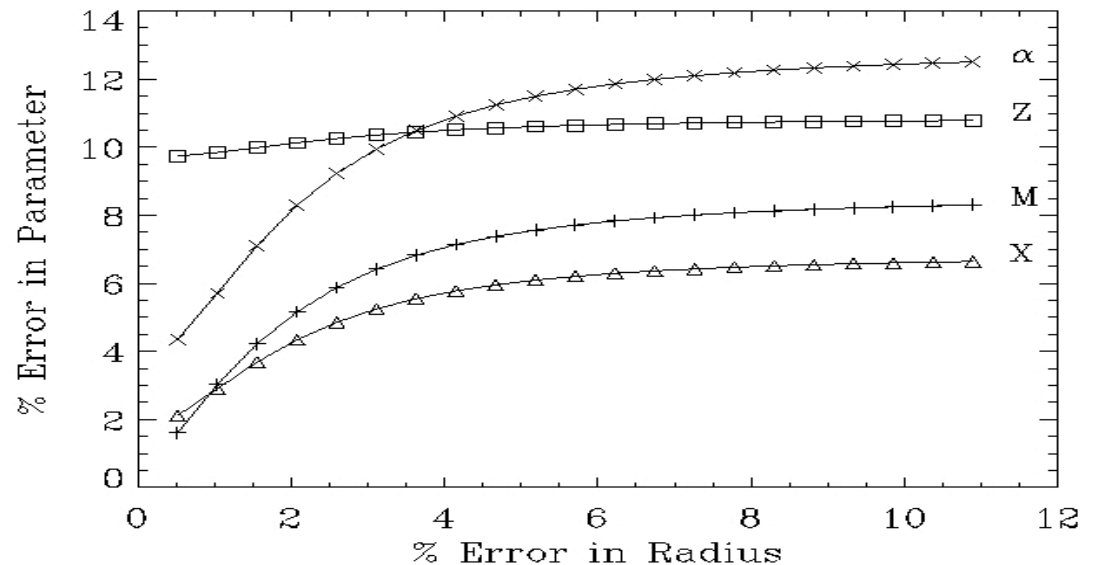


- Title: Probing stellar structure and evolution models of evolved stars using seismology.

- Measure Diameter of HD2151 (G2IV)
- Measure $R \Rightarrow$ constrain models (M)

$$(L, T_{\text{eff}})_{Y,M,Z/X} \Rightarrow R = 1.8 .$$

- Breakthrough with VLT I _(M) < 4% because seismic models depend on R

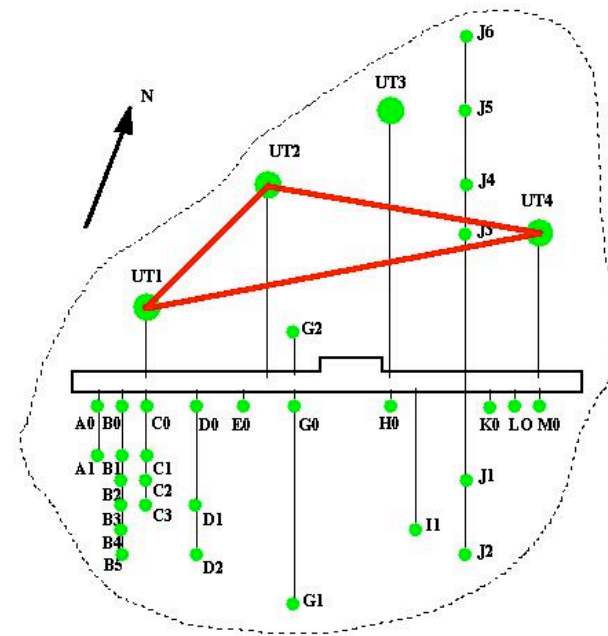


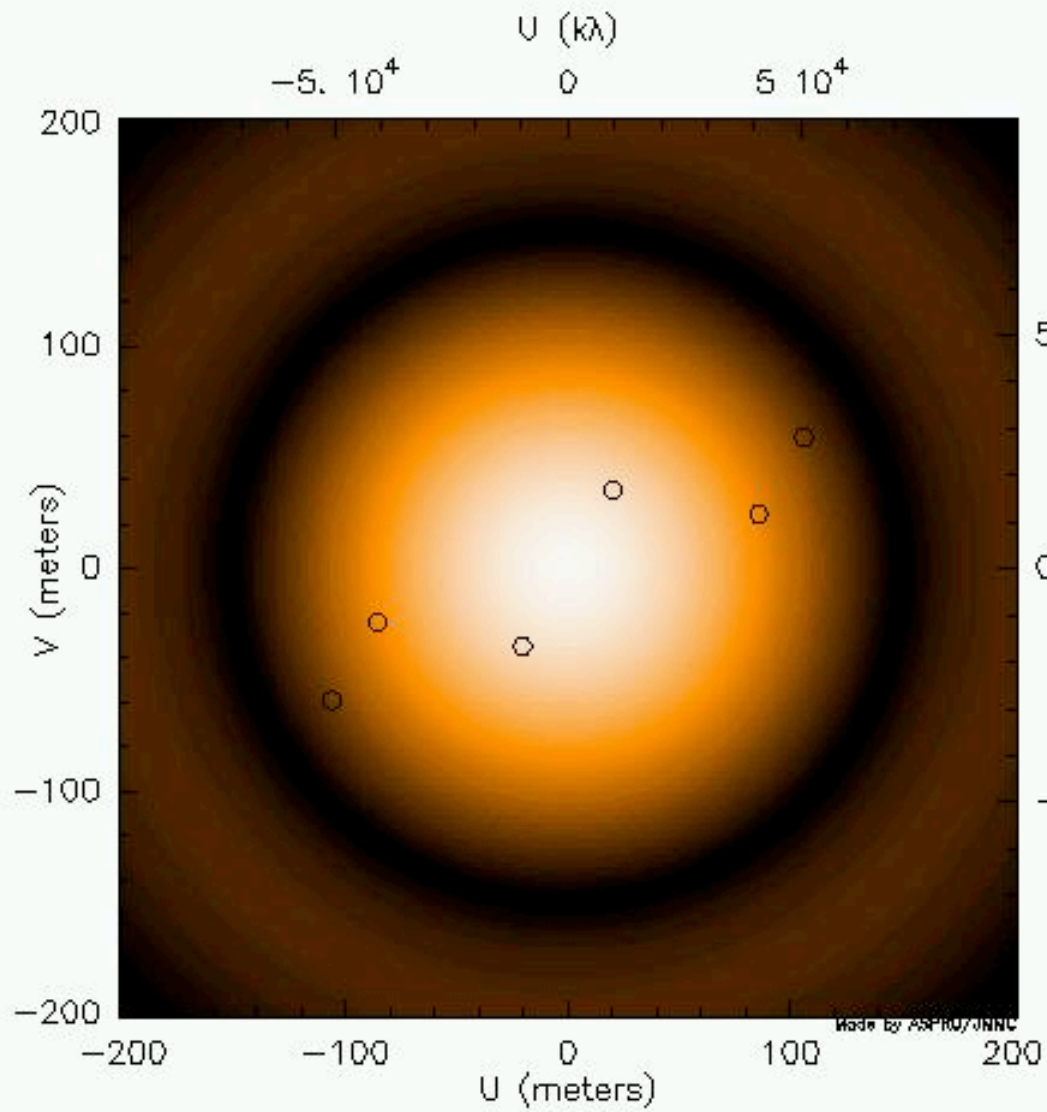
Target and Calibrator

- Target: HD2151 (G2IV)
 - 00 25; -77 15
 - Distance = 7.5 pc
 - $V = 2.8$, $K = 1.7$
 - HRD position error 3%
 - Mass = 1.05 – 1.22 M_{solar}
 - $\omega = 56.2 \text{ } \mu\text{Hz}$
- Observability
 - observe in zenith, ~ 1 hr
 - Aug-Oct
- Calibrator: HD4815 (K5III)
 - 00 48; -74 55
 - $V_2 = .51$
 - $V = 5.9$, $K = 2.03$

Instrument Set-up

- Amber UT1, UT2, UT4
- Low Resolution (LR-HK)
(1.46-2.54 microns)
- 60 mins (object + calibrator)





U1-U2-U4, DL set @ 127.0000

Wavelength 2.100 microns

Declination -77.2°

Model: C DISK

Source: HD2151

