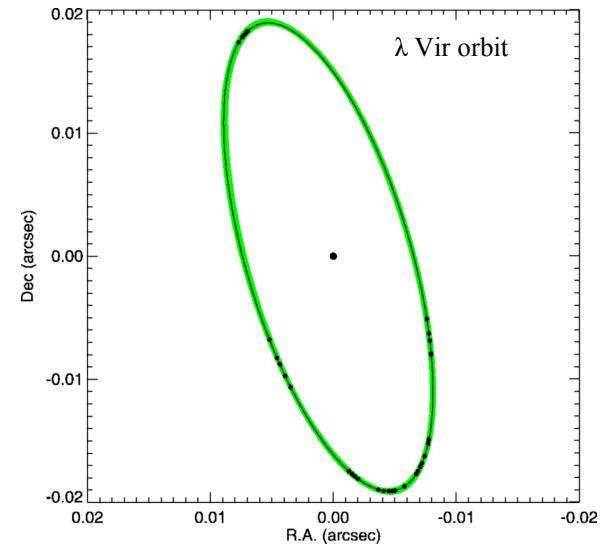
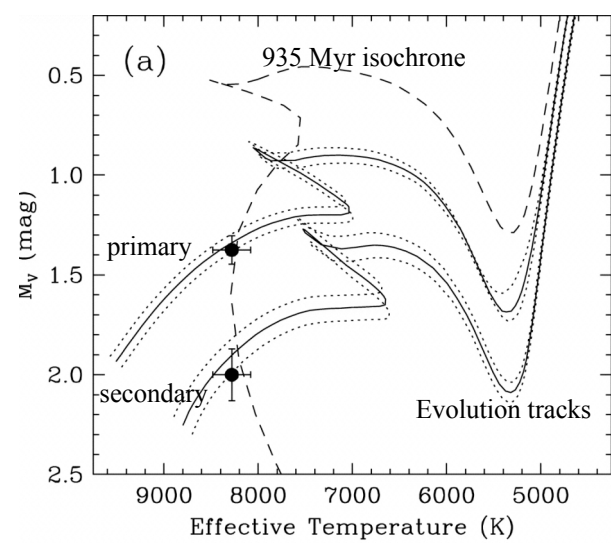
Physical Orbit for λ Virginis and a Test of Stellar Evolution Models

M. Zhao , J. D. Monnier , G. Torres, et al. 2007, ApJ, 659, 626

λ Vir : Metallic-lined A (Am) binary with a broad-lined primary and sharp-lined secondary

Observations: IOTA-3T and Radial Velocity

Summary: The orbital elements and physical properties of λ Vir are determined to high accuracy, which allowed comparisons between observations and stellar evolution models. The best-fit evolution model yields subsolar metallicity, indicating the evolution of λ Vir is similar to normal A stars despite their surface abundance anomalies (which is common for Am stars).

Properties:	Primary	Secondary
Mass (Msun)	1.897 ± 0.016	1.721 ± 0.023
Radius (Rsun)	2.35	1.84
Temperature (K)	8280 ± 200	8280 ± 200
V magnitude	5.003 ± 0.070	5.63 ± 0.12
Z	0.0097 =>	[Fe/H] = -0.29
Age (Myr)	935