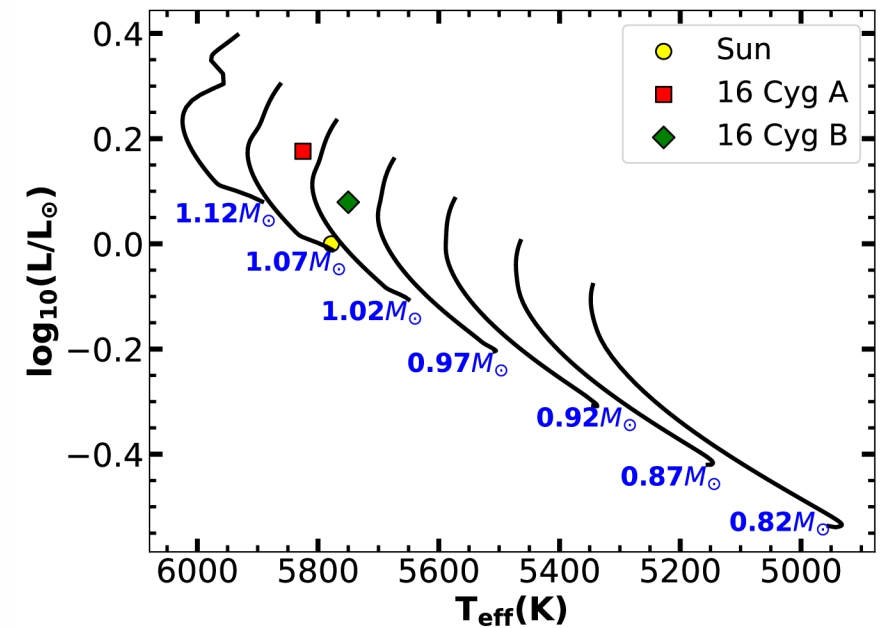


Re-visiting the Stellar Models of 16 Cygni A and B

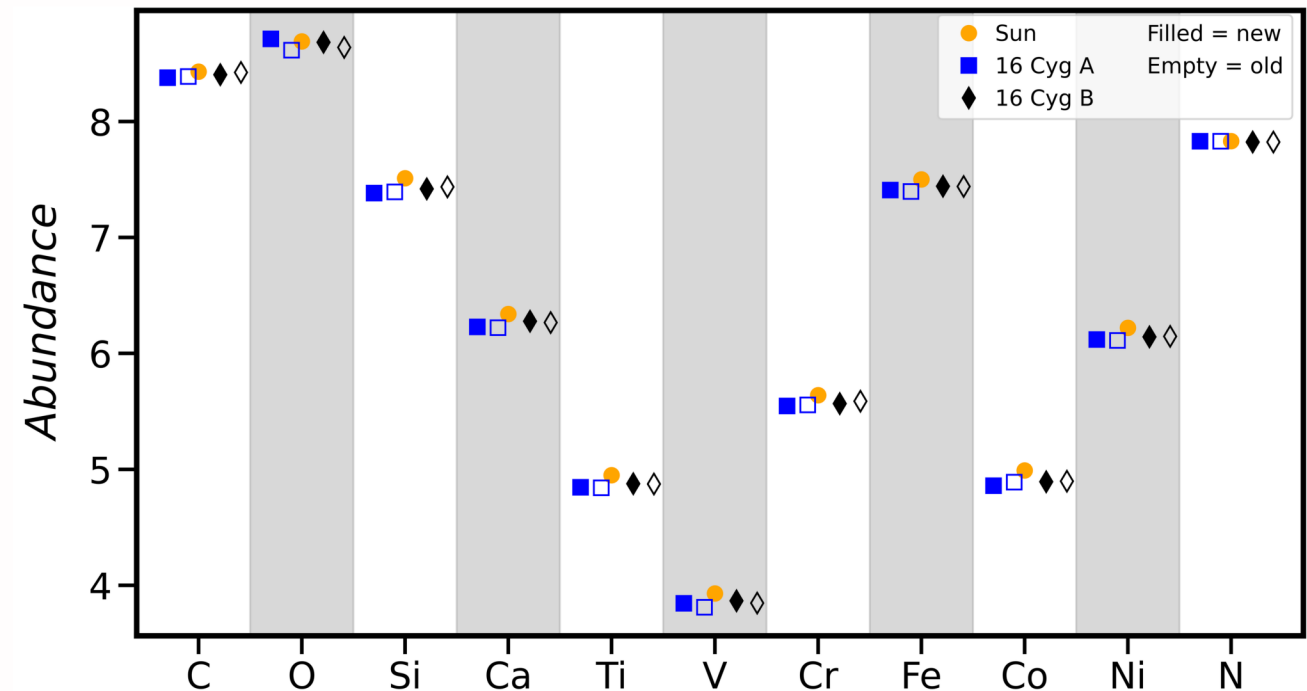
Resty Lalam and Benard Nsamba

ABSTRACT

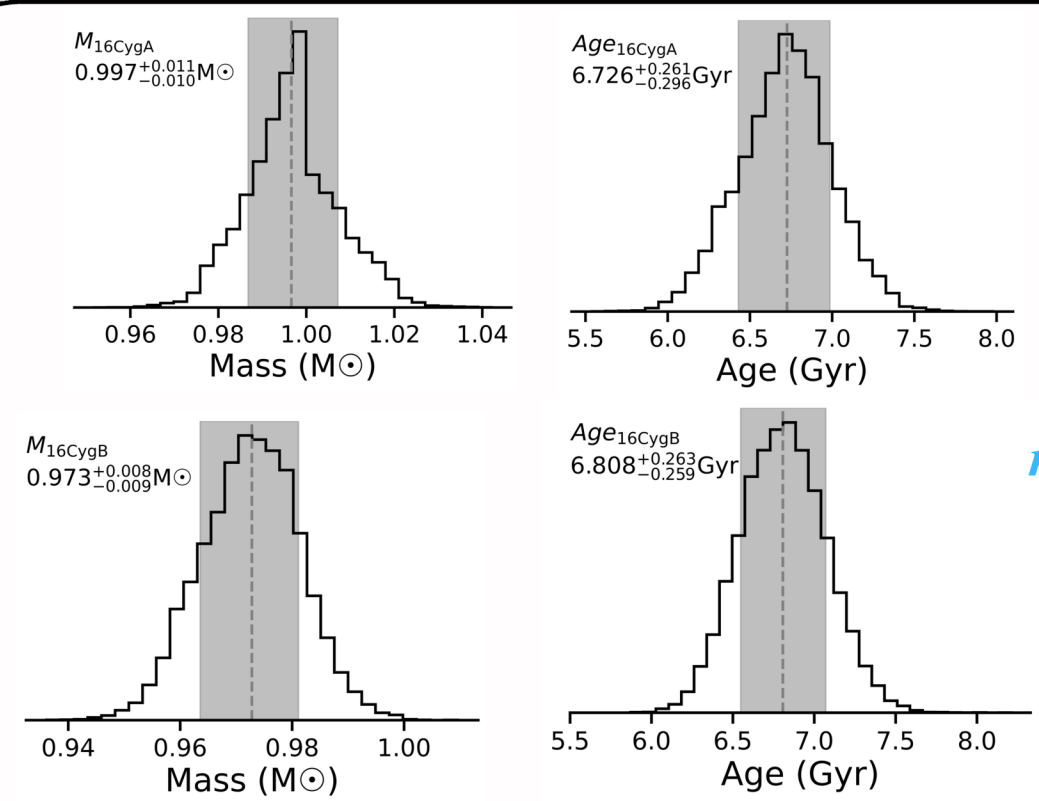
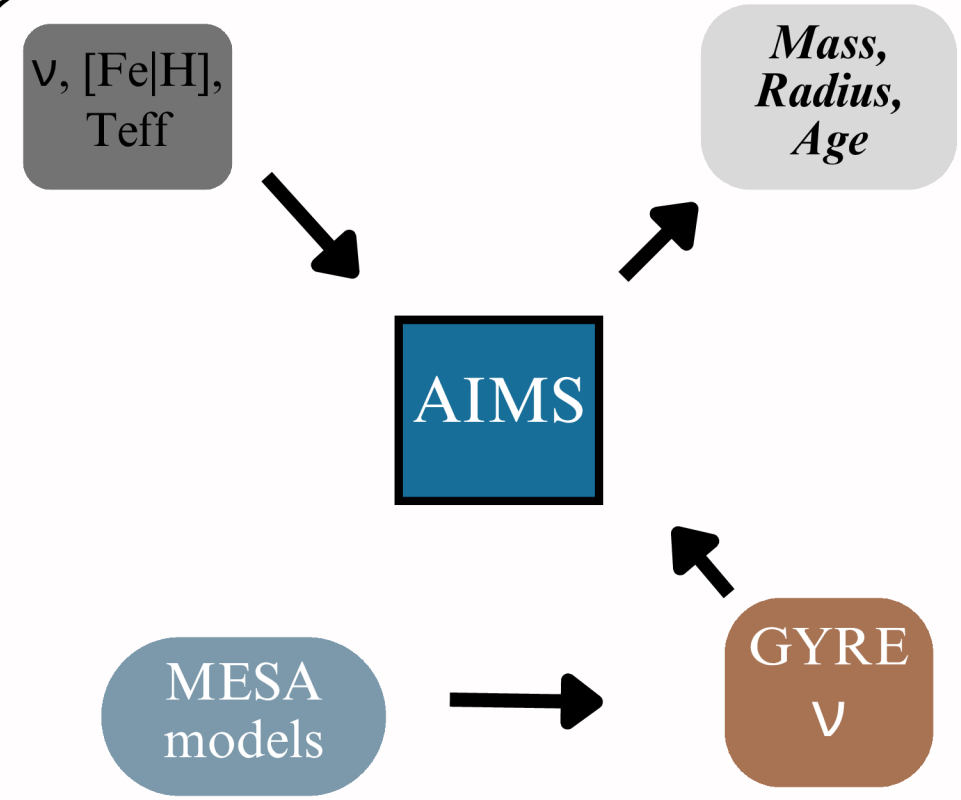
16 Cygni A and B are bright, solar-like stars and well-studied analogs of the Sun, offering valuable insights into its past and future evolution. We refine the modeling of the 16 Cygni system by incorporating updated chemical compositions and metallicity data to update estimates of their mass, radius, and age.



****Hertzsprung-Russell diagram highlighting the positions of the Sun, 16 Cyg A, and 16 Cyg B**



****Comparison plot for Grevesse & Sauval 1998 solar abundances with the new and old 16 cygni A and B elemental abundances**



****Inferred stellar masses and ages using Grevesse & Sauval 1998 solar abundances**

REMARKS

- These are preliminary results obtained using the Grevesse & Sauval 1998 chemical abundances in MESA.

REFERENCE

Takeda, Y. 2024, Astron.Nachr., 345,e230174. <https://doi.org/10.1002/asna.20230174>