

rapid, stochastic brightness variations from the accretion disk typically are not seen, detectable UV flickering is a common property of symbiotic stars. Supporting our physical interpretation of the two X-ray spectral components, the UV photometry shows that symbiotic stars with harder X-ray emission tend to have stronger UV flickering, which is usually associated with accretion through a disk.

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A new He model atom accounting for the ^3He isotope and an empirically solution for the He stratification in the line-formation calculations allow us to characterize this star in a more realistic manner than do classical models.

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PHOTOMETRIC ANALYSIS OF GALACTIC STELLAR CLUSTERS IN VVV SURVEY

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We show the preliminary results of the study of the structure of the Horizontal Branch of Liller 1 and some results from the Calcium Triplet method using Ks magnitude applied to several Galactic Globular clusters using data from the VISTA Variables in the Via Lactea Survey (Minniti et al. 2010) and obtained with GeMS/GSAOI. The data are extracted with the new automatic VVV-SkZ_pipeline photometric pipeline (Mauro et al. 2013).

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ATMOSPHERIC STRATIFICATION SIGNS IN NON-LTE OF ^3He AND ^4He IN THE BP STAR A CEN

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We have analyzed a high-resolution and high-S/N UVES spectrum of the Bp star a Centauri (He-variable) by means of state-of-the-art non-LTE spectral synthesis. Atmospheric parameters were determined in an iterative way via ionization equilibria of OI/II and FeII/III and the matching of several Balmer lines simultaneously. Because of chemical stratification and the presence of ^3He , the He lines are not matched with a standard model atmosphere.

STELLAR MODELS OF ROTATING, PMS STARS WITH MAGNETIC FIELDS

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We report our ongoing studies of the magnetic field effects on the structure and evolution of low-mass stars, using a method first proposed by Lydon & Sofia (1995, ApJS 101, 357) which treats the magnetic field as a perturbation on the stellar structure equations. The ATON 2.3 stellar evolution code (Ventura et al. 1998, A&A 334, 953) now includes, via this method, the effects of an imposed, parametric magnetic field whose surface strength scales throughout the stellar interior according to one of the three following laws: (a) the ratio between the magnetic and gas energy densities, β_{mg} , is kept at its surface value across the stellar interior, (b) β_{mg} has a shallower decrease in deeper layers, or (c) β_{mg} decays as $[m(r)/M_{\star}]^{2/3}$. We then computed rotating stellar models, starting at the pre-main sequence phase, of 0.4, 0.6, 0.8 and 1.0 M_{\odot} with solar chemical composition, mixing-length convection treatment with $\alpha=\Lambda/H_P=1.5$ and surface magnetic field strength of 50 G. Summarizing our main findings: (1) we confirm that the magnetic field inhibits convection and so reduces the convective envelope; (2) the magnetic perturbation effect dominates over that of rotation for 0.8 and 1.0 M_{\odot} masses, but their relative impact shows a reversal during the Hayashi tracks at lower masses (0.4 and 0.6 M_{\odot}); in any case, the magnetic perturbation makes the tracks cooler; and (3) the magnetic field contributes to higher surface lithium abundances.

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