XL Reunião Anual



28 a 31 de agosto de 2016 Ribeirão Preto, SP - Centro de Convenções

objective to characterize five new detached low-mass EBs discovered in the WTS, with short periods between 0.59 and 1.72 days. A preliminary analysis of the radial velocity and light curves was performed, where we have derived orbital separations of 2.86 to 6.57 R_, and considering both components, we have found stellar radii ranging from 0.32 to 0.77 R_, masses between 0.18 and 0.67M_. In addition to the determination of the physical and orbital parameters of these systems, the relation between mass, radius and orbital period of these objects can be investigated in order to study the mass-radius relation ship and the radius anomaly of low-mass stars.

PAINEL 37

THE MAGNETIC CATACLYSMIC VARIABLE V348 PAV

Matheus Soares Palhares¹, Alexandre Soares de Oliveira¹, Claudia Vilega Rodrigues², Deonisio Cieslinski², Francisco José Jablonski², Karleyne Medeiros Gomes Silva³, Leonardo Andrade Almeida⁴, Isabel de Jesus Lima², Murilo Martins¹

1 - UNIVAP 2 - INPE 3 - Gemini Observatory 4 - IAG/USP

ataclysmic Variables (CVs) are close binary systems composed of a white dwarf and amain sequence red star transferring mass to the compact object as it fills its Rochelobe. The magnetic CVs (mCVs) are a subclass of CVs where the white dwarf presentes an intense magnetic field and material is transferred not by an accretion disc as in non magnetic CVs but is guided by the magnetic field lines to the white dwarf surface, near the magnetic poles. The mCVs with B 7 MG are classified as polars and have both stellar components rotating synchronous usly with the orbital period, while systems with B _ 7 MG are intermediate polars (IPs) with non-synchronous rotation and the presence of truncated accretion disc in addition to an inner accretion column. In mCVs the emitted light is polarized due to the interaction of transferred material with the magnetic field lines that produce, for example, the cyclotron radiation and this defines a CVs as a polar. In the context of a project to search for new members of the mCV class, we selected the candidate SSS110526:195648-603430 (hereafter SSS1956-60, previously classified as the nova-like V348 Pav) for detailed observational follow-up. Inthis work we present the analysis of 13 h of time-resolved spectroscopic data obtained with the Goodman spectrograph at the SOAR Telescope and 20 h of time-resolved polarimetric and photometric data obtained with the P&E Telescope on OPD/LNA. The SOAR spectra of V348 Pav present narrow emission lines of H and He II 4686 Å, aswell as less intense He I, Fe II and the Bowen C III/N III complex at 4640 Å. The HeII 4684 Å line is more intense than the H line. The photometric data show an 0.7 magamplitude senoidal lightcurve with a period of 1.3 h, which places it among the 3 polares with the shortest orbital period in the Ritter & Kolb catalogue. Circular polarization modulates with an amplitude of about 15%. Spectroscopic and polarimetric feature sattest the classification of SSS1956-60 as a polar.

PAINEL 38

ESTRELAS GÊMEAS E ANÁLOGAS DO SOL: ANÁLISE DE ALTA RESOLUÇÃO NO ULTRAVIOLETA Maria Luiza Ubaldo Melo , Gustavo Frederico Porto de Mello OV/UFRJ

Estrelas análogas e gêmeas do Sol são objetos fundamentais no estudo de uma extensa frente de problemas astrofísicos, como o conhecimento das cores solares, a calibração da distribuição absoluta

Boletim SAB, v. 34, n. 1, 2016