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Centre attaché à l'Observatoire de Genève



UNIVERSITÉ DE GENÈVE

ASTROPHYSICS SEMINAR



Tuesday, 7 December 2004 at 11:00

Analysis of the 'local minima'-effect detected in multifrequency observations of SS 433

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Abstract. In the available observational data obtained with the INTEGRAL gamma-ray observatory (March - May 2003) and the X-ray satellites GINGA (1986 - 1991), ASCA (1993 - 1996) and RXTE (1996-2004), as well as in the optical observations with the 0.6 m telescope of the SAI Crimean observatory in the Johnson V-filter (1979 - 2000), stable repeatable local minima have been discovered at certain orbital and precessional phases, apart from the regular primary and secondary minima of the orbital light curve. This discovery does not fit into the commonly adopted model of the SS 433 binary system. The empirical rule of this specific feature arising in the light curve was established. We analyzed this 'local minima'-effect in the frame of the colliding wind model taking into account the accretion disk wind asymmetry and derive the values of the physical parameters of the model. We conclude that an additional obscuring component of the system should be taken into account when calculating the light curve at elongate phases ($\phi = 0.25, 0.75$) near the disk edge-on configuration of SS 433.

Additional Information

The seminars are given in the ISDC "Pavillon" building
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