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Circular polarimetry of V1082 Sgr: an extraordinary long-period magnetic cataclysmic variable

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Pre-polars are detached binary systems composed by a magnetic white dwarf (WD) accreting matter by the capture of the stellar wind of a cool donor, usually a late-type main sequence star. These systems can be the progenitors of polars, which is a subclass of magnetic cataclysmic variable consisting of a Roche Lobe filling low-mass companion star and a strongly magnetized WD. Nowadays the evolution of magnetic cataclysmic variables is undergoing intense study, and pre-polars can play an important role for its comprehension. The present list of pre-polars has 22 objects, among confirmed and probable systems. Recently, 5 systems were detected with variable circular polarization. V1082 Sgr is a pre-polar candidate with long orbital period of 20.8-h. In this contribution, we present polarimetric observations performed using the 0.6-m Perkin-Elmer telescope of the Observatório Pico dos Dias (OPD/LNA- Brazil) coupled with the IAGPOL polarimeter. We detected circular polarization with an amplitude of 1% modulated with a period of 1.9-h interpreted as WD spin period. This result confirms the presence of magnetic accretion in V1082 Sgr and increases the number of pre-polars with positive detection of circular polarization.

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