Spectropolarimetric Observations of the Recurrent Novaes

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Recurrent Novae (RNe) are nova systems that have more than one recorded outburst. There are currently 10 confirmed RNe in the Galaxy (Schaefer, B. 2010). The presence of a massive, accreting white dwarf in RNe systems, with the possibility of the white dwarf increasing its mass, makes them potential progenitors of Type Ia supernovae. RNe can be divided into (a) long and (b) short period systems (Anupama, G.G. 2013). The long period systems consist of red giants and white dwarf: RS Oph, T CrB, V3890 Sgr and V745 Sco. The short period systems are further divided into U Sco and T Pyx groups based on the outburst and quiescent properties (Anupama, G.G. 2013).
Cropper (1990) observed variable linear polarization of RS Oph during 1985 outburst indicating the presence of intrinsic polarization. Our observations of RS Oph from July 2017 to July 2018 indicate that at the time of our observations, there is no intrinsic polarization in RS Oph (Nikolov et al., 2019). T Pyxidis show variable, intrinsic linear polarization during 2011 recurent novae outburst (Pavana et al.,2019).
I will present spectropolarimetric observations of long period systems RS Oph and T CrB.

References

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