
Zeeman Doppler imaging of sigma2 CrB

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Abstract

We have used spectropolarimetric data obtained in the context of the BinaMIcS project to study the global magnetic field topology and cool spot distribution on the surfaces of the components of the active close binary star sigma2 CrB. This binary is comprised of two active Sun-like stars in a tight, synchronised 1.14 d orbit. We find that, despite being very similar in terms of their fundamental parameters, the components of sigma2 CrB show significantly different magnetic field properties, with the secondary having a noticeably stronger magnetic field than the primary. Both components show evidence of a solar-like differential rotation.

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