

# HD 149277: a rare short-period SB2 system with a subsynchronously rotating magnetic He-rich primary

González, J.F. (1), Hubrig, S. (2), Järvinen, S.P. (2), & Schüller, M. (3)

1 - Instituto de Ciencias Astronómicas, de la Tierra y del Espacio (ICATE), Av. España Sur 1512, CC 49, 5400 San Juan, Argentina

2 - Leibniz-Institut für Astrophysik, An der Sternwarte 16, 14482 Potsdam, Germany

3 - European Southern Observatory, Karl-Schwarzschild-Str. 2, 85748 Garching, Germany

HD 149277 is a rare SB2 system with a slowly rotating magnetic He-rich primary with  $P_{\text{rot}} = 25.4$  d. The CFHT/ESPaDOnS archive spectra revealed  $P_{\text{orb}} = 11.5192 \pm 0.0005$  d indicating strong subsynchronous rotation of the primary component. Such a strong subsynchronous rotation was not detected in any other SB2 system with a magnetic chemically peculiar component. Our inspection of the spectra revealed the presence of resolved Zeeman split spectral lines allowing us to determine the variability of the mean magnetic field modulus over the rotation period. The maximum of the magnetic field modulus coincides roughly with the positive extremum of the longitudinal field, whereas the minimum of the modulus with the negative extremum of the longitudinal field. No evidence for a longitudinal magnetic field was seen in the circularly polarized spectra of the secondary component. Using archival data from the ASAS3 survey, we find in the frequency spectrum only one significant peak, corresponding to the period  $P_{\text{phot}} = 25.390 \pm 0.014$  d. This value is in good agreement with the previous determination of the rotation period,  $P_{\text{rot}} = 25.380 \pm 0.007$  d, which was based on longitudinal magnetic field measurements.

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Email: [sjarvinen@aip.de](mailto:sjarvinen@aip.de)