Magneto-seismic analysis of the magnetic pulsator β CMa

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Abstract

The seismic analysis of massive stars provides constraints on their stellar structure, since stellar pulsations serve as a diagnostic for their internal conditions. In case the star also hosts a stable large-scale magnetic field, observable at its surface, additional constraints can be obtained. One such massive magnetic pulsator, observed by the BRITE constellation of nanosatellites and monitored by the ground-based BRITE spectropolarimetric survey, is the B1II/III star β CMa. Here, we present the magneto-seismic analysis of this weakly magnetic object, using BRITE photometric, spectropolarimetric, and archival spectroscopic data.

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