

# Theoretical traces of the linear polarization parameters for a star with a rotating magnetized jet

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**Abstract.** We present the results of numerical calculations of the Stokes parameters  $q$  and  $u$  for a magnetized gaseous jet, rotating in the equatorial plane of the star, with allowance for single electron scattering of stellar radiation and Faraday rotation of the polarization plane in the presence of magnetic field.

The traces on the  $(q,u)$ -plane are analyzed for different sets of values of the inclination angle  $i$  and magnetic field  $B$ .

It is shown that investigation of cyclic polarimetric variability in a number of spectral bands is an effective way of studying inhomogeneities in circumstellar gaseous envelopes.