abstract We present a new optical spectroscopic study of the O-type binary HD 165052 based on high-
and intermediate-resolution CCD observations. We re-investigated the spectral classification of the binary
components, obtaining spectral types of O6.5 V and O7.5 V for the primary and secondary, respectively, finding that both stars
display emission in their spectra. We also determined a radial-velocity orbit for HD 165052 with a period of 2.95510 ± 0.00001 d, and semiamplitudes of 94.8 and 104.7 ± 0.5 km s^{-1}, resulting in a mass ratio $Q = 0.9$. From a
comparison with previous radial-velocity determinations, we found evidence of apsidal motion in the system.
Several signatures of wind-wind collision, such as phase-locked variability of the X-ray flux and the Struve-
Sahade effect, are also considered. It was also found that the reddening in the region should be normal, in
contrast with previous determinations.