

Eta Carinae around the 2009 periastron - a new view with X-shooter
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We observed the Eta Carinae binary system with the newly commissioned X-shooter spectrograph at the VLT during and shortly after the last periastron of the system on Jan. 11 2009. X-shooter covers the whole spectral range from the UV (3000 Å to the IR (2.5 μm) simultaneously with medium resolution (R=4000–9000). Two longslits were placed on the skirt and the Homunculus radially extending out from the star in opposite directions at three different epochs in January (5–10 d after periastron), March and June. The Sr-filament was covered with three positions of the 1.8×4 arcsec IFU in January. The shape of the Balmer lines in the opposite slitpositions can give us information about the orientation of the orbit of the secondary star. The absence of PCygni absorption on the south-west slit indicates that the secondary enters from the south-western side ionizing the wind material causing the absorption in the north-east slit. The X-ray emission which disappears during periastron due to the collapse of the shock front of the winds recovered surprisingly early in 2009. High ionization lines were still not visible again in the data of the March run while they are still visible in the outer regions of the radial slits in January since those regions had not yet been shut off the UV radiation due to the light travel time.