

Synthetic observables with VLTI of dust asymmetries in the inner parts of circumbinary discs

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Near-infrared interferometric observations using VLTI instruments have opened up a new avenue for exploring the dynamics of the inner regions of circumstellar discs. Modelling the interferometric data can constrain the dust's physical properties in the inner regions of discs. In particular, a dozen of discs observed with GRAVITY or MATISSE at the VLTI exhibit high closure phases suggesting an asymmetric spatial distribution of the dust at a few tenths of an astronomical unit. We are currently exploring various origins for this asymmetry, ranging from a dust-trapping vortex for a single star to an eccentric disc inner edge for a binary star. In this poster, I will present the second scenario. For this, I will show synthetic interferometric observations obtained from the results of hydrodynamical simulations post-processed by dust radiative transfer calculations to discuss what dust structures in circumbinary discs would look like if they were observed by the VLTI.

