
Hydrodynamics and interferometry speaking to each other: the case of Gamma Velorum

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Abstract

We present a work on the closest Wolf-Rayet star Gamma Velorum where we compared a hydrodynamic simulation of the wind-wind collision region with interferometric data in the K-band continuum. This comparison permitted us to confirm the presence of a contribution of the wind collision zone to the K-band continuum via free-free emission. In that work, we also refined the orbital solution of the system, confirming the previous results and setting the system distance at 2% level. We then extrapolate from the hydrodynamic simulation what can be done in the future to study the observed emission-lines variability, which very likely comes from the wind-collision zone.

Keywords: Gamma Velorum, hydrodynamics simulation, interferometry, wind, wind collision

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