

Latest developments in the binary-driven hypernova scenario of long gamma-ray bursts

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I will give an overview and show the latest developments about the physical ingredients and associated observables of the binary-driven hypernova (BdHN) scenario of long gamma-ray bursts (GRBs). In particular, I focus on the role of the newborn neutron star (newNS) formed in the core-collapse supernova (SN) of the carbon-oxygen (CO) star, the NS binary companion, and the black hole (BH) formed from the induced gravitational collapse of the latter, in the physical description of the precursors, the prompt emission, the high-energy (GeV) emission, and the afterglow in the X-rays, optical and radio wavelengths of long GRBs.

Primary author: RUEDA HERNANDEZ, Jorge Armando (ICRANet)

Presenter: RUEDA HERNANDEZ, Jorge Armando (ICRANet)

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