Hubble Space Telescope

Cycle 15 AR Proposal

Eta Carinae and its Extended Wind

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Abstract

Using spectroscopic archival data we plan to study the spectacular luminous blue variable Eta Carinae and its extended wind. The principal objective is to place rigorous constraints on the primary star and its wind. Such constraints are essential if we are to determine the cause of the gigantic explosion that occurred in the 1840's. To achieve our objectives we will study the geometry of Eta Carinae and its wind by viewing it from different directions (through the use of reflected spectra), by studying the spatial extent and properties of the wind which is resolved (at some wavelengths) by HST, and by studying the spectroscopic and spatial time variability.

Investigators:

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Number of investigators: 2