

A MID-INFRARED ANALYSIS OF THE HIGH-MASS YSO IRAS11101-5829 USING GEMINI SOUTH

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IRAS11101-5829 is a massive YSO associated with a very luminous pair of Herbig-Haro objects HH135/136, located in Eastern Carina. Early work has pointed to a Herbig Ae/Be star encircled by a dust disk. Observations of molecular masers associated with this source apparently confirmed high-mass nature. However, its continuum mm observations suggest a possible double core. Its powerful jets interact with the parental molecular cloud sculpting a cavity and this morphology is very well defined in near-infrared. In this wavelength range the polarization pattern is consistent with IRAS 11101-5829 being the exciting source. It has also been argued that the NE jet is deflected through a collision with a molecular cloud. The suggested region of the impact includes a MSX6C source and the knot HH136-E, which is also the center of the polarization pattern in optical wavelengths. We present high-resolution mid-infrared imaging of the high-mass star forming region containing IRAS 11101-5829 and the pair of Herbig-Haro objects, using the T-ReCS camera in Gemini South (7.7 to 12.3 micron). They confirm that the central source is a deeply embedded single high-mass star. The knot HH136-E is a star-like source and has a SED consistent with an young stellar object embedded in its parental molecular cloud. We combined these observations with previous polarization and spectroscopic data to provide a consistent picture of the region.