

LOW MASS STAR FORMATION PHENOMENA

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ABSTRACT. Recent observations of phenomena related to the earliest observable phases of young low mass stars are reviewed, with special emphasis on Herbig-Haro flows and jets. As a particularly fine case, the recently discovered jet HH 111 in Orion is discussed. This object consists of a 50" long jet emanating from a $25 L_{\odot}$ embedded infrared source. Further away from the source there are two bow shocks, and on the opposite side of the source there are two more bow shocks. The total extent of the HH complex is over 6 arcmin, or 0.8 pc in projection. All emission components west of the source are blue-shifted, while on the eastern side they are red-shifted. It is argued that the two phenomena, FU Orionis eruptions and Herbig-Haro objects, are closely related, and that shocked jets are repetitive, eruptive events.

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