Streamers and Multiplicity: Is there a connection?

Friday 29 August 2025 10:50 (20 minutes)

The process of star and disk formation is known to involve interactions with the surrounding environment. Recent observations have revealed evidence of several young, embedded objects showing elongated, asymmetric infall. We refer to these features as streamers when they appear unconnected to the parental dense core. Such streamers can deliver substantial mass and angular momentum, potentially disrupting the disk formation process. However, a systematic analysis across a broader sample of objects has not yet been carried out comparing singles and multiples. Here, we present results from the PRODIGE NOEMA large program, which surveyed 32 young stellar objects (YSOs) in the Perseus cloud. We report the overall detection rate of streamers in the full sample and specifically compare the occurrence between single and multiple systems. We investigate whether the presence of streamers correlates with the degree of multiplicity. These results represent the first systematic study of this kind.

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