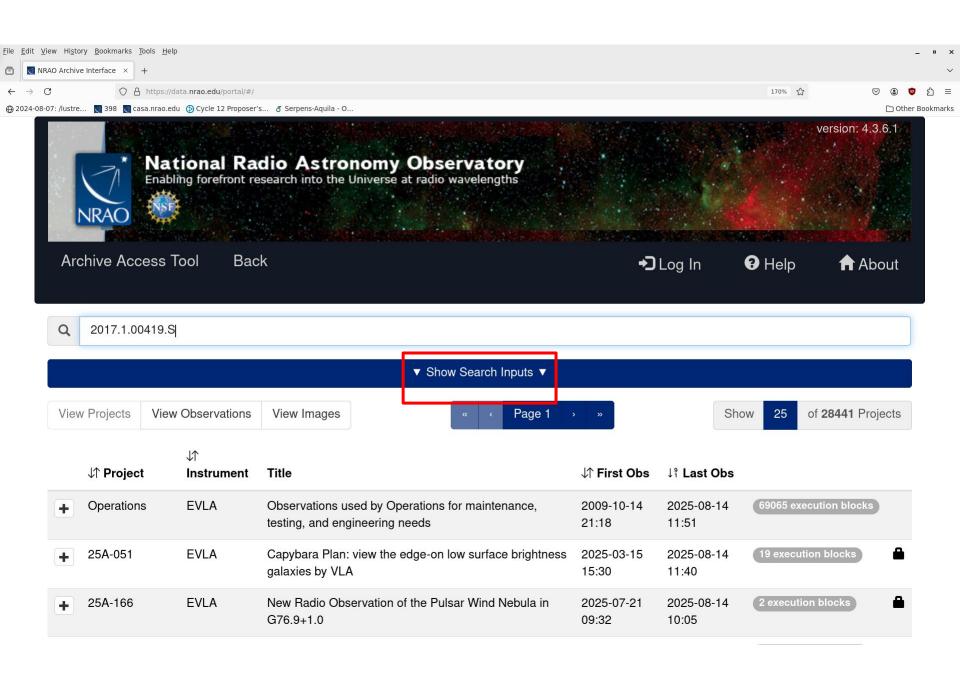
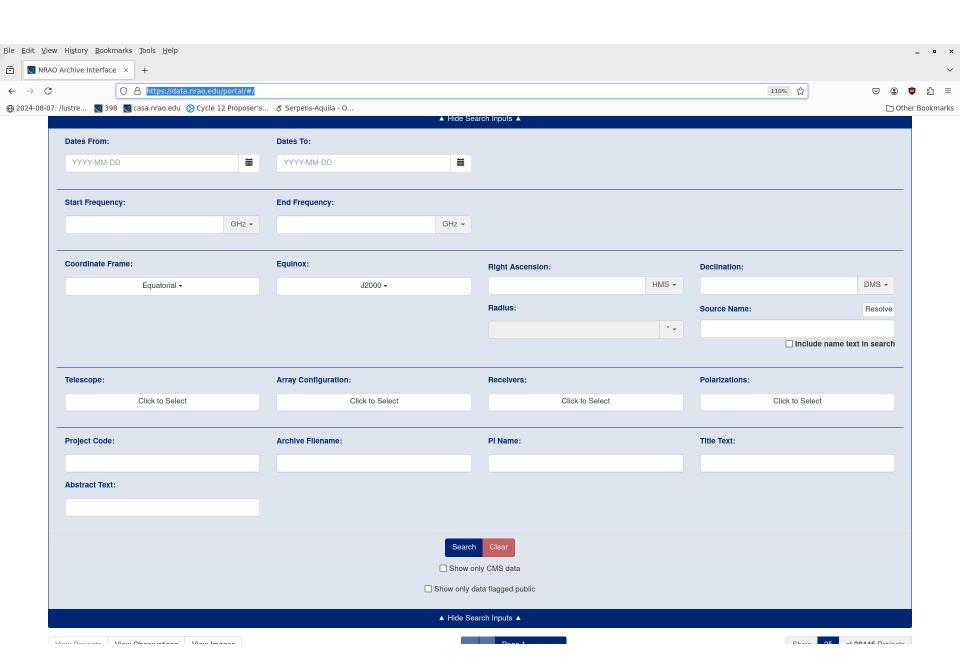
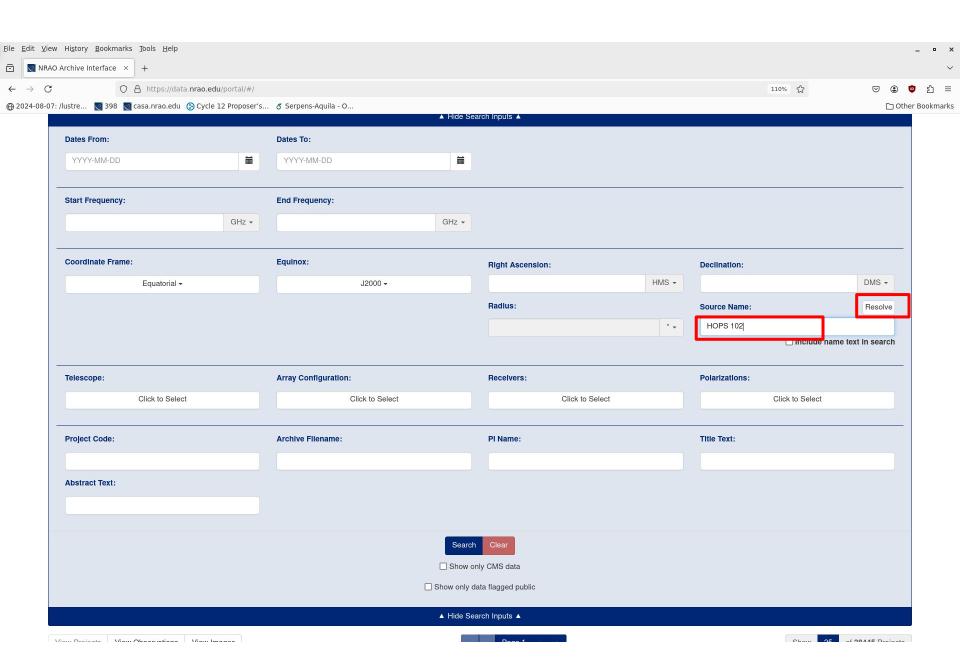
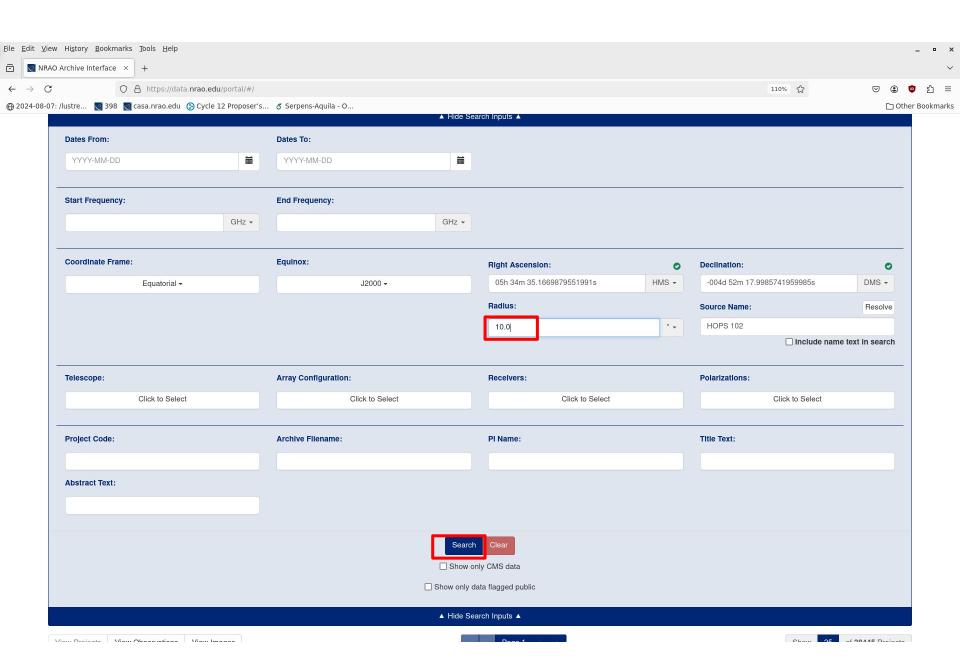


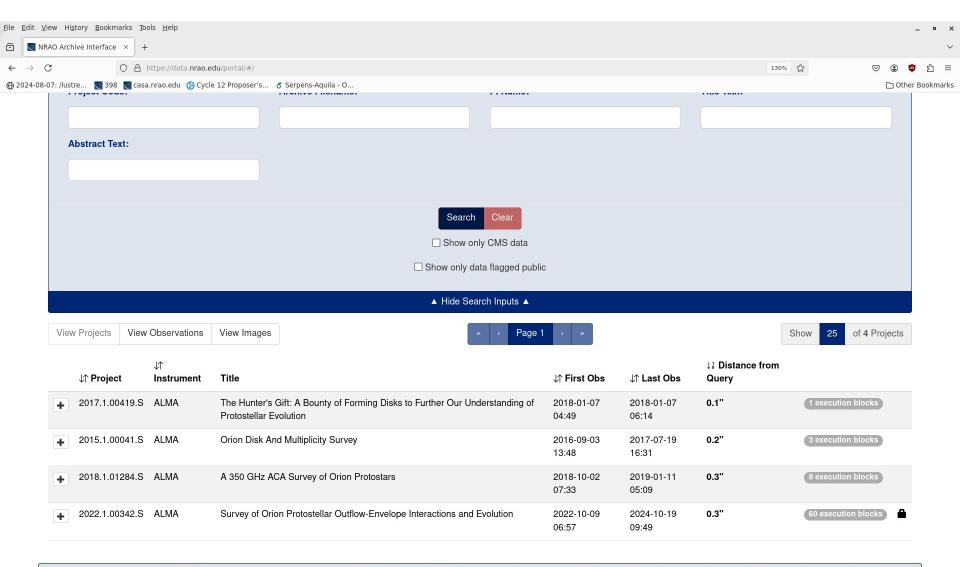
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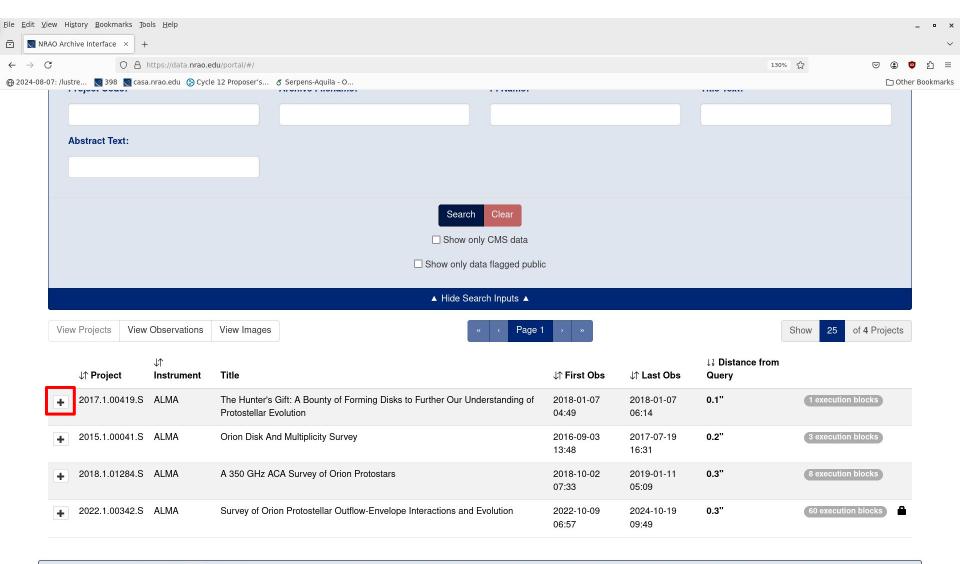






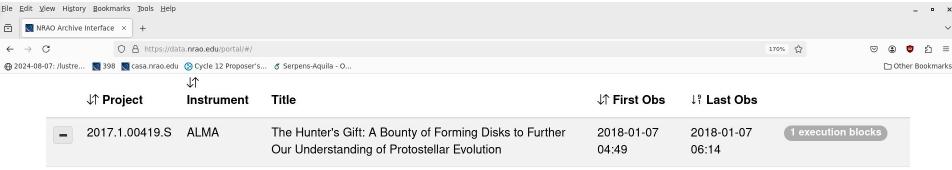








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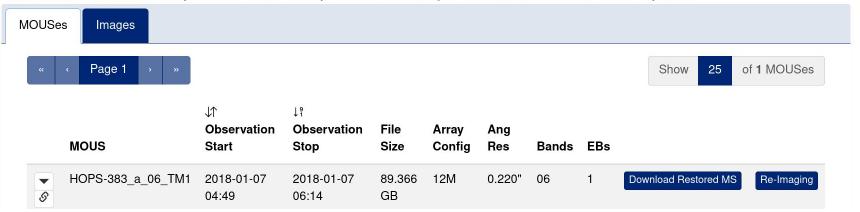


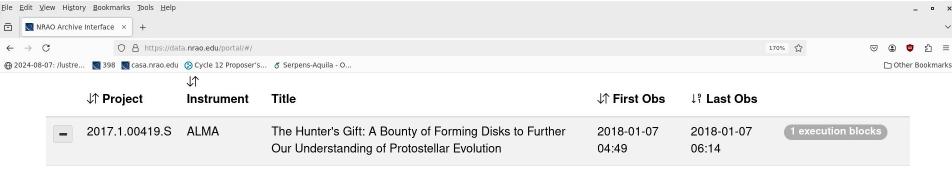
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Abstract: The formation of a protostar and its Keplerian disk remains a poorly characterized process, but ALMA now provides an opportunity for significant progress. These forming disks also hold the key to measuring the most fundamental parameter of newborn stars, their masses derived from the Keplerian disk rotation. The measurement of protostar masses and the properties of forming disks for large ensembles of systems is essential to solidifying our knowledge of star and planet formation. Our ALMA Cycle 3 survey of 330 protostars in the Orion molecular clouds at 0.13" (50 AU) resolution yielded >100 well-resolved continuum images of apparent protostellar disks. We propose to observe a sample of 20 disk candidates around 10 Class 0 and 10 Class I protostars, drawn from a representative range of luminosities (0.4 L_sun to 480 L_sun). With these observations, we will confirm whether or not each disk is Keplerian, using molecular line tracers (primarily C18O J=2-1), measure the change in mass and mass accretion between the Class 0 and I phases, how much the disk properties depend on stellar mass, and how much disk structure evolves from Class 0 to Class I and later stages.

PI: John Tobin

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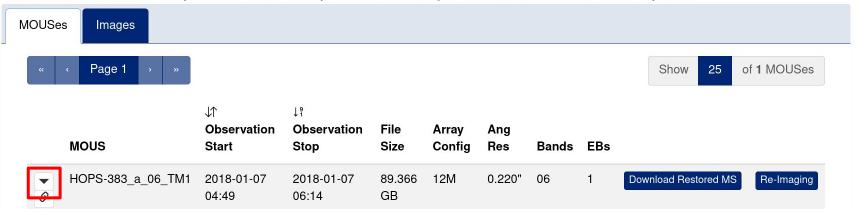


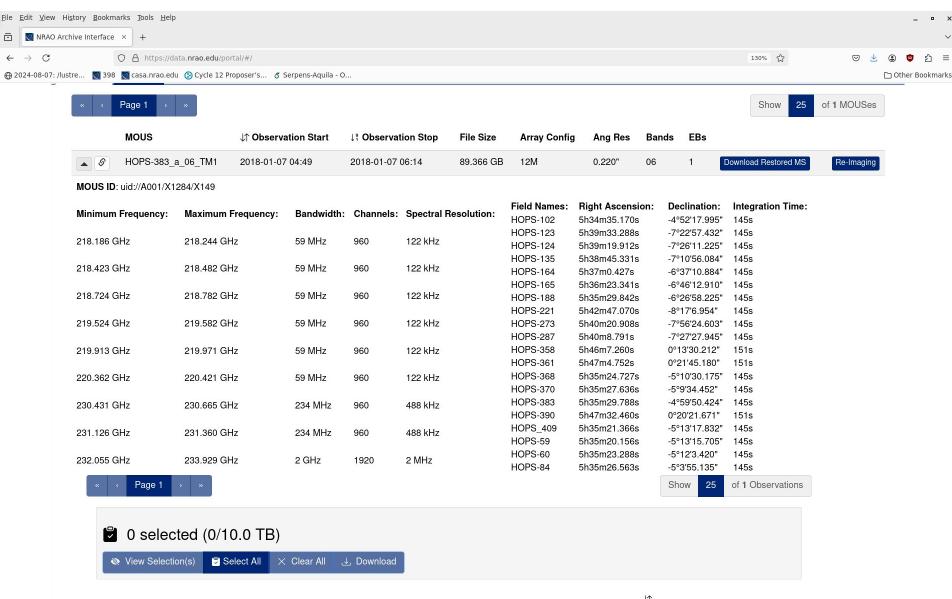
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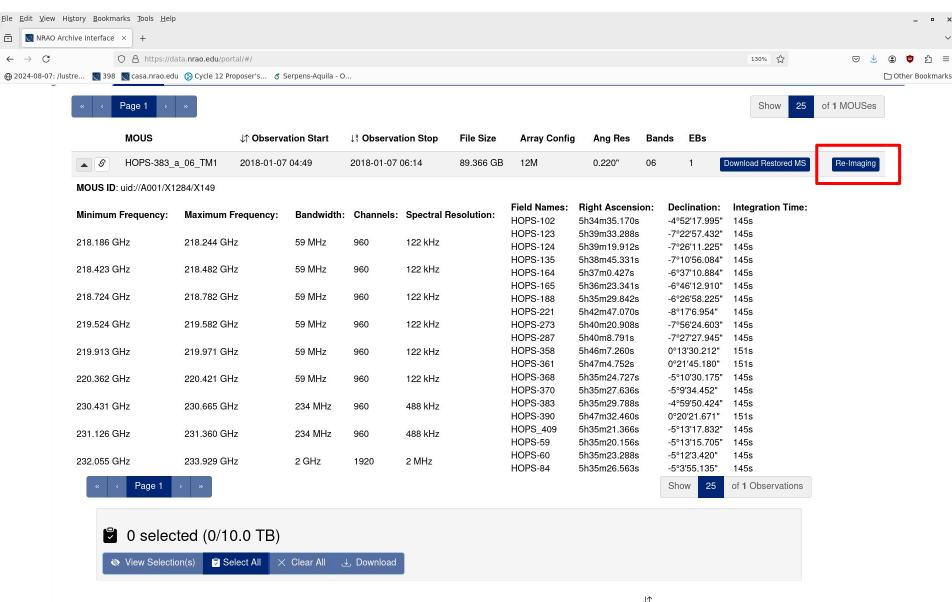
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