Impact of accretion variability on the CO emission of a disk around a very-low-mass star with JWST

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Recent JWST/MIRI observations of disks around very-low-mass stars (VLMS) tend to show that these disks are richer in hydrocarbons compared to their TTauri homologs. In order to more precisely derive the disk C/O ratio, we obtained NIRSpec observations (1 to 5 microns, with CO emitting around 4.6 microns, Fig. 1) of a VLMS which has been already characterized with MIRI. We find that this target actually presents an accretion variability and it is consistent with a reduction of its accretion rate of at least a factor 5 in 2 years. This variability impacts the emission of CO in the inner disk, reducing its total flux by a factor 2. I will present these new observations and discuss how the CO correlates with the gas reservoir in the inner regions of these disks.