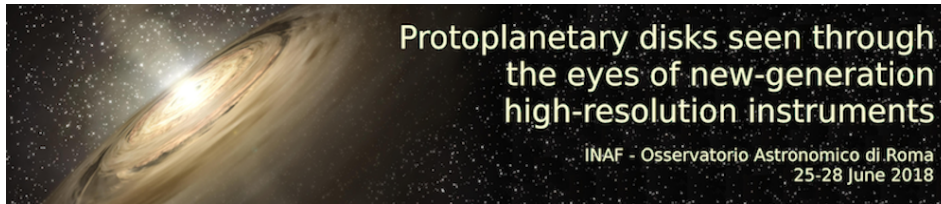


## Protoplanetary disks



Contribution ID: 12

Type: Talk

## Mass accretion rates from HST data: the case of LH95 in the Large Magellanic Cloud

*Tuesday, 26 June 2018 11:40 (20 minutes)*

We present recent results on accretion properties of low-mass stars in the metal-poor star forming region (SFR) LH95 within the Large Magellanic Cloud (LMC). Using optical and H $\alpha$  photometry obtained with the Hubble Space Telescope, we identify, within the initial catalogue of about 25000 sources, 245 bona fide pre-main sequence (PMS) stars with H $\alpha$  excess emission, for which we measure physical and accretion parameters. We identify two different populations of PMS stars: younger than 8 Myr with high levels of accretion rates and assembled in groups around massive stars, and ~10-50 Myr old stars with lower levels of accretion rates and uniformly distributed within the region without evidence of clumping. We compare our results with those obtained in Galactic SFRs with close-to-solar metallicities and in other clusters of the LMC and we put them in the context of future facilities, like the James Webb Space Telescope.

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**Session Classification:** Disk accretion and star-disk interaction (chair B. Stelzer)