Science with MAVIS 2021



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Ram pressure stripping and star formation in low and intermediate redshift clusters with MAVIS

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Environmental effects play a primary role in galaxy evolution and in particular in shaping the star formation history of galaxies in groups and even more so in clusters; Ram-pressure was proved to be among the most efficient ones in dense environments.

MUSE is giving new and fundamental insights on this phenomenon in low to intermediate redshift ($z\sim0.3-0.4$) cluster galaxies, however available observations are strongly limited by the spatial resolutions of ~1 kpc or worse.

MAVIS will open a completely new window thanks to its unprecedented spatial resolution.

I will present both the imaging and the spectroscopic improvements in this field that will be made possible by MAVIS, which will allow not only to infer the ram pressure stripping events but also to resolve star forming regions in the stripped gas tail up to $z \sim 1$. These offer a unique opportunity to study the star formation process under extreme conditions, in the absence of an underlying disk and embedded within the hot intracluster medium.

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