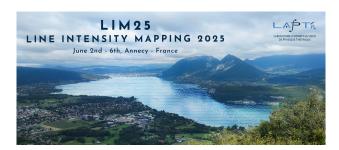
LIM25 - Annecy



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Hydrogen intensity mapping with MeerKAT: ongoing efforts

In the radio band, we do LIM with the redshifted 21-cm radiation emitted by cosmic neutral hydrogen, HI. It is the most abundant baryonic component of the Universe, making it an ideal large-scale structure tracer, and it is the primary fuel of star formation, making it essential for understanding galaxy evolution. I'll focus on our current efforts to perform HI IM observations with the MeerKAT radio telescope. We tested our analysis pipeline by measuring the cross-correlation signal with an overlapping galaxy dataset; I'll describe those measurements and what they taught us. Results are encouraging and have instilled in us the confidence to pursue a direct detection of the HI cosmological signal, which I'll peer towards. In perspective, our ongoing work marks a milestone for the cosmology science case with the entire SKA Observatory (which the MeerKAT dishes will be part of in less than 5 years).

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Classification de Session: Contributed Talks 2: MeerKLASS & SKA