

# $\phi$ -de Sitter duals of spacelike hypersurfaces in the lightcone as wave front sets

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## Abstract

Four Legendrian dualities related with the pseudo-spheres in Lorentz-Minkowski space which are called Hyperbolic space, de Sitter space and lightcone were shown in [2]. And these Legendrian dualities were extended in [3] for one-parameter families depending on a parameter  $\phi \in [0, \pi/2]$  of these pseudo-spheres.

In this talk, as an application of these extended Legendrian dualities, we first introduce one-parameter families of extrinsic differential geometries on spacelike hypersurfaces in the lightcone with respect to  $\phi$ -de Sitter duals. Then, we mention about these duals as wave front sets by means of Legendrian singularity theory, [4].

## References

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