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Handan Yildirim* (handanyildirim@istanbul.edu.tr), Istanbul University Science Faculty, Mathematics Department Vezneciler-Fatih, 34134 Istanbul, Turkey. *ϕ -hyperbolic duals of spacelike hypersurfaces in the lightcone as wave front sets.*

In this talk which is based on a joint work with Shyuichi Izumiya, as an application of the extended Legendrian dualities defined in [1] depending on a parameter $\phi \in [0, \pi/2]$, first one-parameter families of extrinsic differential geometries on spacelike hypersurfaces in the lightcone are introduced briefly with respect to ϕ -hyperbolic duals. Then, by means of Legendrian singularity theory, these duals are investigated as wave front sets, [2].

References

- [1] S. Izumiya and H. Yildirim, *Extensions of the mandala of Legendrian dualities for pseudo-spheres in Lorentz-Minkowski space*, Topology and its Applications **159** (2012), 509-518.
- [2] S. Izumiya and H. Yildirim, *Slant geometry of spacelike hypersurfaces in the lightcone*, J. Math. Soc. Japan **63(3)** (2011), 715-752.

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