Semi-Discrete Constant Mean Curvature Surfaces of Revolution in Minkowski Space

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ABSTRACT

Only in the most recent half a decade, semi-discrete surfaces have been investigated, and they have the promise to be a bridge between the theories of smooth and discrete surfaces, helping us to recognize the similarities and differences between smooth and discrete surfaces.

In this talk we introduce semi-discrete constant mean curvature (CMC, for short) surfaces of revolution in Minkowski 3-space. Unlike the case in Euclidean 3-space, semi-discrete CMC surfaces in Minkowski 3-space generally have certain singularities. First we introduce semi-discrete surface theory and the notion of singularities of semi-discrete surfaces. Finally, we classify semi-discrete CMC surfaces of revolution in Minkowski 3-space and analyze their singularities. This talk is mainly based on joint work with Christian Mller (TU Wien).