CMC-1 surfaces in hyperbolic and de Sitter spaces with Cantor ends

Jorge Hidalgo Calderón

This talk is based on a recent work with I. Castro-Infantes. We show that for every compact Riemann surface M there is a Cantor set $C \subset M$ for which $M \setminus C$ admits a proper conformal (angle preserving) CMC-1 (constant mean curvature one) immersion into $\mathbb{H}^3$, thus enlarging the family of Riemann surfaces that admit such an immersion. I will explain our construction and how we can adapt it to prove a similar result for CMC-1 spacelike surfaces with certain singularities in de Sitter space.