Invariant curves for strictly pseudoconvex hypersurfaces in $\mathbb{C}^2$

Florian Bertrand

(American University of Beirut)

Abstract: We consider two families of complex invariant curves associated to strictly pseudoconvex hypersurfaces, namely chains and extremal discs for the Kobayashi metric. These invariant curves, of different geometric nature, coincide in the case of the sphere. In this talk, I will present new characterizations of the sphere in $\mathbb{C}^2$ in term of these curves. This is joint work with G. Della Sala and B. Lamel.