Extendability of the shift homeomorphism of some planar embeddings of unimodal inverse limit spaces

*Ana Anušić, Henk Bruin, Jernej Činč**

ana.anusic@fer.hr,
henk.bruin@univie.ac.at,
jernej.cinc@univie.ac.at

Let $\varprojlim([0,1],T)$ denote the inverse limit space on the unit interval $[0,1]$ with the unimodal bonding map T. In [1] it was proven that there exists uncountably many different planar embeddings of unimodal inverse limit spaces for a bonding map T with a positive topological entropy.

In order to make $\varprojlim([0,1],T)$ an attractor of some planar diffeomorphism and thus interesting from the dynamical system perspective it should hold that the shift (natural) homeomorphism on $\varprojlim([0,1],T)$ can be extended to the plane.

In this talk I will discuss about the aspect of extendability of the shift homeomorphism of some planar embeddings of $\varprojlim([0,1],T)$.

[1] A. Anušić and J. C. Henk Bruin, *Uncountably many planar embeddings of unimodal inverse limit spaces*, arXiv:1603.03887 (2016)