Uncountable family of 0-rigid continua that are homeomorphic to their inverse limits

Matevž Črepnjak
University of Maribor
matevz.crepnjak@um.si

It is a well-known fact that there are continua X such that the inverse limit of any inverse sequence $\{X, f_n\}$ with surjective continuous bonding functions f_n is homomorphic to X. The pseudoarc or any Cook continuum are examples of such continua. Recently, a large family of continua X was constructed in such a way that X is $\frac{1}{m}$-rigid and the inverse limit of any inverse sequence $\{X, f_n\}$ with surjective continuous bonding functions f_n is homeomorphic to X by Banič and Kac.

In this talk, we construct an uncountable family of pairwise non-homeomorphic continua X such that X is 0-rigid and prove that for any sequence (f_n) of continuous surjections on X, the inverse limit $\varprojlim\{X, f_n\}$ is homeomorphic to X. **(joint work with Teja Kac)**