Jan Boronski and Jernej Činč* (jernej.cinc@agh.edu.pl), AGH University of Science and Technology, al. Mickiewicza 30, 30-059 Krakow, Poland, and Piotr Oprocha. On the Barge entropy conjecture.

In 1920's Knaster described the first example of a hereditarily indecomposable continuum which later received the name pseudo-arc due to the property that every of its subcontinua is homeomorphic to itself, yet the continuum is not homeomorphic to the arc. One of the basic questions in topological dynamics about such complicated spaces is, what are the possible topological entropies of their homeomorphisms. For the pseudo-arc the conjecture that possible topological entropies of its homeomorphisms can take any positive real value was posed by Marcy Barge in 1989. Until now, all known pseudo-arc homeomorphisms have had entropy 0 or ∞ . In this talk, I will overview some known results relating to the Barge entropy conjecture and discuss our recently obtained positive solution to the conjecture. The positive entropy homeomorphisms that we construct are periodic point free, except for a unique fixed point. The talk is based on a joint work with Jan P. Boroński and Piotr Oprocha. (Received September 16, 2019)