What Is Topological Entropy?

This talk will introduce the notion of topological entropy as it appears in Adler, Konheim, and McAndrew's paper. I will briefly cover the terminology relating to open coverings of a topological space used in constructing their definition of entropy. The definition of entropy will then be presented, followed by an explanation of several mathematically useful properties of entropy. The talk will conclude with example computations of entropy and the statement of an alternate definition originating from Dinaburg and Bowen.

Resources:

Adler, Konheim, & McAndrew. "Topological Entropy." *Transactions of the American Mathematical Society*, vol. 114, no. 2 (Feb., 1965), pp. 309-319.

Bowen. "Entropy for Group Endomorphisms and Homogeneous Spaces." *Transactions of the American Mathematical Society.* vol. 153 (Jan., 1971), pp. 401-414.