1113-37-235   **Steven Hurder*** (`hurder@uic.edu`), University of Illinois at Chicago, Department of Math (m/c 249), 322 SEO, 851 S. Morgan Street, Chicago, IL 60607. *Entropy of the Kuperberg pseudogroup.* Preliminary report.

The purpose of this talk is to describe some novel aspects of the dynamics of the Kuperberg pseudogroup. Krystyna Kuperberg showed that the smooth Seifert Conjecture is false, by constructing smooth aperiodic plugs in 3-dimensions, which can be used to construct smooth aperiodic flows on any compact 3-manifold. The flows in these aperiodic plugs have a unique minimal set. In the paper "The dynamics of generic Kuperberg flows" by Hurder and Rechtman, we analyze the dynamics and topology of these minimal sets. A key tool is the introduction of the Kuperberg pseudogroup, defined by the return maps of the flow to a section, where the section is allowed to have tangencies to the flow, and thus the pseudogroup generators have singularities. While the usual entropy of an smooth aperiodic flow must always vanish, the "slow entropy" need not, and we discuss why the slow entropy does not vanish for the Kuperberg pseudogroup, and also is not zero for the flow. (Received August 23, 2015)