Gottschalk's surjunctivity conjecture

October 8th, 2013
Arbeitsgemeinschaft: Sofic Entropy
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Gotthschalk's surjunctivity conjecture asserts that if $\Gamma \curvearrowright A^\Gamma$ is a Bernoulli action of a countable discrete group Γ with finite alphabet A and $f : A^\Gamma \to A^\Gamma$ is a Γ-equivariant continuous injective map, then f is surjective. In the talk we explained why Gottschalk's surjunctivity conjecture is stronger than Kaplansky's conjecture on the direct finiteness of the group algebra $K\Gamma$ for an arbitrary field K. We then demonstrated how topological entropy can be used to give a positive solution to Gottschalk's surjunctivity conjecture for sofic groups.