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## **Gunnar Höglund: Shift Spaces and Two Notions of Entropy**

### **Sammanfattning**

There are several different notions of entropy in mathematics. Chris Hillman discusses a couple of these in his paper "All Entropies Agree for an SFT" ([4]), and presents the result that they all agree numerically on shifts of finite type. The focus in this report is on shift spaces in general and two notions of entropy in particular - topological and probabilistic - and their relationship will be shown more thoroughly. In order to do this we will begin with an overview of shift spaces and continue with basic graph theory. After presenting proof of some results for shift spaces and shift dynamical systems the report is concluded with one section on topological entropy and one on probabilistic entropy.