1009-37-213 **Angela Desai*** (`adesai@math.umd.edu`). *Subsystem Entropy for $\mathbb{Z}^d$ Sofic Systems.*

We will discuss results on the entropy of $\mathbb{Z}^d$ sofic systems. In particular, we will show that any $\mathbb{Z}^d$ shift of finite type with positive topological entropy has a family of subsystems of finite type whose entropies are dense in the interval from 0 to the entropy of the original shift. We will prove a similar result for $\mathbb{Z}^d$ sofic shifts, and also show that every $\mathbb{Z}^d$ sofic shift can be covered by a $\mathbb{Z}^d$ shift of finite type arbitrarily close in entropy. (Received August 16, 2005)