1020-37-205 **Ronnie Pavlov*** (`rpavlov@math.ohio-state.edu`), 231 W. 18th Ave., Columbus, OH 43210.
Perturbations of Multidimensional Shifts of Finite Type.

For any symbolic topological dynamical system $\mathbf{Y} = (Y, \sigma)$ (i.e. Y is a closed shift-invariant subset of $A^{\mathbb{Z}}$ for some finite set A) with positive topological entropy, one can ask the question: if a word w in the language of Y is removed, how much does the topological entropy $h^{top}(Y)$ decrease by? Some cases are not very interesting; for example if $\mathbf{Y}$ is minimal, then the removal of any word will leave the empty system, with topological entropy zero. At the other end of the spectrum, Douglas Lind proved in a 1989 paper that for any mixing shift of finite type X, there exist constants $C, D > 0$ and N such that for any word w of length $n > N$ which is in the language of X, if one defines the shift of finite type X_w as consisting of all members of X in which w does not appear, then $Ce^{-h^{top}(X)n} < h^{top}(X) - h^{top}(X_w) < De^{-h^{top}(X)n}$. I will be discussing an extension of Lind's result which applies to $\mathbb{Z}^d$ shifts of finite type for $d \geq 1$. (Received August 28, 2006)