LOWERERING TOPOLOGICAL ENTROPY
IN TOPOLOGICAL DYNAMICS

Guo Hua Zhang
School of Mathematics and Statistics
University of New South Wales
Sydney 2052, Australia
and
School of Mathematical Sciences
Fudan University
Shanghai 200433, China
zhanggh@fudan.edu.cn

ABSTRACT. By a topological dynamical system we mean a compact metric space equipped with a self-homeomorphism. To understand the complexity of a given topological dynamical system, people are interested in the study of factors and subsets of it. There are many concepts reflecting the complexity of a topological dynamical system, such as transitivity, sensitivity, chaos, complexity function, entropy, and so on. In this talk, we shall only discuss the concept of entropy in topological dynamics along the lines of both factors and subsets. The first part concerns some results of Lindenstrauss, Shub and Weiss [3, 4, 5, 6] obtained in the period of 1991–2000. The second part, the main part of the talk, concerns some recent results of Huang, Ye and I [1, 2, 7].

REFERENCES