Fiber-mixing codes and factors of Gibbs measures for subshifts of finite type

Uijin Jung
Korea Institute for Advanced Study

Abstract

We introduce a class of factor codes between subshifts called fiber-mixing codes. Generalizing results of Chazottes-Ugalde, Pollicott-Kempton, and Yoo, we show that if \( \phi : X \to Y \) is a fiber-mixing code between 1-sided mixing shifts of finite type, then \( \phi(\mu) \) is a Gibbs measure on \( Y \) for each Gibbs measure on \( X \). We give sufficient conditions for the existence of fiber-mixing factor code between 1-sided irreducible shifts of finite type in terms of entropy and periodic points. Analogous results will be presented for the case of 2-sided shift spaces.