The SRB measure and its derivative for hyperbolic systems Miaohua Jiang

Abstract

For a hyperbolic system, the SRB measure, if exists, characterizes the complex statistical behavior of orbits. This invariant measure depends on the system differentiably when the underlying system is sufficiently smooth. Its derivative with respect to the system is called the linear response function. In many cases, the formula of the linear response function can be determined explicitly.