

On cohomological theory of dynamical zeta functions.

Masato Tsujii ¹

¹ Kyushu University

We discuss about the conjectural cohomological theory of dynamical zeta functions, which has been considered by Guillemin, Patterson and Juhl, in the case of general Anosov flows. Our aim is to provide a functional-analytic framework that enables us to justify the basic part of the theory rigorously. We show that the zeros and poles of a class of dynamical zeta functions, including the semi-classical (or Gutzwiller-Voros) zeta functions, are interpreted as eigenvalues of the generators of some transfer operators acting on the leaf-wise de Rham cohomology spaces of the unstable foliation.