

On the number of Pollicott-Ruelle resonances for open hyperbolic systems and Axiom A flows

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Abstract: Pollicott-Ruelle resonances are natural complex frequencies of hyperbolic dynamical systems. In this talk we discuss bounds on the number of Pollicott-Ruelle resonances for Axiom A flows. In particular, we prove polynomial upper bounds as well as some weak lower bounds for the number of resonances in a strip for Axiom A flows with a transversality condition. The proof is based on a decomposition into open hyperbolic systems introduced by Dyatlov-Guillarmou and the microlocal study of such systems. The talk is based on joint work with Zhongkai Tao as well as earlier work with Maciej Zworski.