

1084-58-306

Kiril Datchev*, 77 Mass Ave, Cambridge, MA 02139, and **Semyon Dyatlov**. *Fractal Weyl laws for asymptotically hyperbolic manifolds.*

For asymptotically hyperbolic manifolds with hyperbolic trapped sets we prove a fractal upper bound on the number of resonances near the essential spectrum, with power determined by the dimension of the trapped set. This covers the case of general convex cocompact quotients (including the case of connected trapped sets) where our result implies a bound on the number of zeros of the Selberg zeta function in disks of arbitrary size along the imaginary axis. Although no sharp fractal lower bounds are known, the case of quasifuchsian groups, included here, is most likely to provide them. This project is joint work with Semyon Dyatlov. (Received September 04, 2012)