1052-58-227 **David Borthwick*** (`davidb@mathcs.emory.edu`), Dept. of Mathematics and Computer Science, Emory University, Atlanta, GA 30322. *Sharp upper bounds for resonance counting in perturbations of hyperbolic space.*

For a class of "black box" perturbations P of the Laplacian on H^{n+1}, we derive an explicit constant B_P such that the resonance counting function satisfies $N_P(r) \leq B_P r^{n+1} + O(r^n \log r)$. This constant is sharp in the sense that for a single spherical obstacle in H^{n+1}, we have $N_p(r) \sim B_P r^{n+1}$. (Received August 28, 2009)