1077-11-1050   **Ryan Broderick**, **Lior Fishman** and **Dmitry Kleinbock*** (`kleinboc@brandeis.edu`), 450 South Street, Waltham, MA 02454, and **Asaf Reich** and **Barak Weiss**. *Intersection property of fractals via Schmidt games.*

We prove that the countable intersection of diffeomorphic images of certain Diophantine sets has full Hausdorff dimension. For example, we show this for the set of badly approximable vectors in $\mathbf{R}^d$. This is done using a new variant of Schmidt's (α, β)-game and showing that our sets are hyperplane absolute winning (HAW). The HAW property passes automatically to games played on certain fractals, thus our sets intersect a large class of fractals (those we call hyperplane-diffuse) in a set of positive dimension. This extends earlier results of Fishman to a more general set-up, with simpler proofs. (Received September 15, 2011)

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