1166-28-95 **Vladimir Eiderman*** (`veiderma@indiana.edu`). *A "rare" plane set with Hausdorff dimension 2.*

This is a joint research with Michael Larsen (Indiana University).

We prove that for every at most countable family $\{f_k(x)\}$ of real functions on $[0,1)$ there is a single-valued real function $F(x)$, $x \in [0,1)$, such that the Hausdorff dimension of the graph Γ of $F(x)$ equals 2, and for every $C \in \mathbb{R}$ and every k, the intersection of Γ with the graph of the function $f_k(x) + C$ consists of at most one point. We also construct a family of functions of cardinality continuum and a function F with similar properties. (Received February 14, 2021)