

## WILD LORENZ LIKE ATTRACTORS.

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We give a sketch for the proof of the following result which is a joint work with Jan Kiwi and Juan Rivera.

**Main Theorem.** Every manifold of dimension at least 5 admits a  $C^1$  non-empty open set  $O$  such that every  $C^2$  vector field  $X$  in  $O$  exhibits a singular attractor  $\mathfrak{A}_X$  with the following properties.

1.  $\mathfrak{A}_X$  contains a hyperbolic singularity of Morse index 2 of  $X$ .
2.  $\mathfrak{A}_X$  contains a wild hyperbolic set.
3. There is a residual subset of  $O$  that is dense in the  $C^1$  topology, such that if  $X$  belongs to this residual set, then the set of periodic orbits of  $X$  of Morse index 1 and the set of periodic orbits of  $X$  of Morse index 2 are both dense in  $\mathfrak{A}_X$ .

**Remark:** It is possible to push the ideas of this paper to establish a stronger result. More precisely, there exists a  $C^1$  open set  $O$  of  $C^1$  vector fields such that every vector field in  $O$  exhibits an attractor as in the theorem.