1054-37-154 **Andrew Török*** (`torok@math.uh.edu`), Department of Mathematics, University of Houston, Houston, TX 77204-3008, and **Ian Melbourne** and **Viorel Nitica**. *Transitivity of Euclidean-type extensions of hyperbolic systems.*

Let $f : X \to X$ be the restriction to a hyperbolic basic set of a smooth diffeomorphism. We show that in the class of $C^r, r > 0$, cocycles with fiber special Euclidean group $SE(n)$ those that are transitive form a residual set (countable intersection of open dense sets). This result is new for $n \geq 3$ odd.

More generally, we consider Euclidean-type groups $G \ltimes \mathbb{R}^n$ where G is a compact connected Lie group acting linearly on $\mathbb{R}^n$. When $\operatorname{Fix} G = \{0\}$, it is again the case that the transitive cocycles are residual. When $\operatorname{Fix} G \neq \{0\}$, the same result holds on restriction to the subset of cocycles that avoid an obvious and explicit obstruction to transitivity.

This is joint work with Ian Melbourne and Viorel Niţică.