

ROBUST TRANSITIVITY AND DOMINATION FOR ENDOMORPHISMS DISPLAYING CRIT- ICAL POINTS

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We show that robustly transitive endomorphisms of a closed manifold must have a non-trivial dominated splitting or be a local diffeomorphism. This allows us to get some topological obstructions for the existence of robustly transitive endomorphisms. To obtain the result we must understand the structure of the kernel of the differential and the recurrence to the critical set of the endomorphism after perturbation.

This is a joint work with R. Potrie, E. Pujals and W. Ranter.