

Dense orbits of flows and maps — misunderstandings and new results

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Existence of dense orbit (topological transitivity) or a stronger property of every orbit being dense (topological minimality) belong to the core questions of topological dynamics. In this talk I discuss these notions for continuous as well as discrete time systems in a general setting without assuming compactness of the underlying space.

Besides well known results, there are common and frequent misunderstandings related to the mentioned two properties. In the talk I briefly mention a few of them and then proceed to the main part of the talk - new results from the joint paper with Ľubomír Snoha, see [1]. Among others, I present results relating density of orbits of flows and corresponding t-maps, and density of full orbits versus density of forward or backward semi-orbits.

References

- [1] Roman Hric and Ľubomír Snoha, *Dense orbits and misunderstandings around them*, preprint 2012.