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On transitivity, sensitivity and chaos for maps of graphs and some other spaces

During the talk I am going to present two results:

(i) transitivity and sensitivity implies dense periodicity for maps on topological graphs;

(ii) total transitivity and dense periodicity implies mixing for maps on spaces with an open subset homeomorphic with $(0, 1)$.

The first result is well known, but I hope that our new approach will provide a new insight, and although we increase the generality in the second statement, the proof is shorter than the one existing in the literature for the case of graph maps. As corollaries one gets new and simple proofs that Auslander-Yorke chaos implies Devaney chaos, and weak mixing implies mixing for graph maps.