On $\omega_{\mathcal{N}_T}$-limit sets of discrete dynamical systems

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In the year 2016 Wen Huang, Danylo Khilko, Sergii Kolyada and Guohua Zhang published an article on dynamical compactness and sensitivity where they introduced the concept of $\omega_{\mathcal{N}_T}$-limit sets and transitive compactness to connect the Auslander point dynamics with topological transitivity. In this talk we study the properties of $\omega_{\mathcal{N}_T}$-limit sets of chaotic dynamical systems (X, T) given by a compact metric space X and a surjective map $T : X \to X$ and we show that if we restrict ourselves to interval mappings, then transitive compactness and weak mixing are equivalent. Lastly, we discuss open problems.

References

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