Minimal sets and free intervals

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We will talk about minimal sets of dynamical systems defined on a continuum with a free interval, i.e. with an open subset homeomorphic to the open interval $(0, 1)$. Dirbák et al. showed in [1] that every minimal set M intersecting a free interval J is either a finite set or a finite union of disjoint circles or a nowhere dense cantoroid. We prove that such a minimal set must satisfy a property, which we call J-clipping (i.e. there is an arc in $\overline{J}$ containing $M \cap J$). As an application of this result we obtain a topological characterization of minimal sets on the Warsaw circle.

References

[1] M. Dirbák, Ľ. Snoha, V. Špitalský, *Minimality, transitivity, mixing and topological entropy on spaces with a free interval*, to appear in Ergodic Theory Dynam. Systems.