Dynamics admitted by the Lelek fan

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The Lelek fan is a smooth fan with a dense set of endpoints, which, surprisingly, form a one-dimensional subset of the continuum. The continuum admits surprisingly complex dynamical properties - it admits transitive homeomorphisms and non-invertible maps, it admits mixing homeomorphisms and non-invertible maps, it admits homeomorphisms and non-invertible maps with positive entropy. We form the continuum with a two-line relation and its Mahavier product. We have been investigating this continuum and its dynamics for several years now, and the investigation continues.

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