

A transitive homeomorphism on a Cantor fan as a shift on an inverse limit with a set valued function.

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Mouron and Hoehn have constructed a transitive function on a Cantor fan and recently members of this present group have produced a transitive homeomorphism on the Lelek fan and most recently the Cantor fan. In this talk we will show that a transitive homeomorphism on a Cantor fan can be constructed as the shift on a generalized two sided inverse limit with a simple set valued function that is the union of two homeomorphisms on $[-1,1]$. The techniques are supported by general theorems which can be used to construct more transitive homeomorphisms.

(joint work with Judy Kennedy, Iztok Banic, Chris Mouron, Goran Erceg)