

1124-22-174 **Xiao Chang*** (xic58@pitt.edu) and **Paul M Gartside** (gartside@math.pitt.edu). *When is $H(X)$ compact?* Preliminary report.

Hofmann and Morris recently showed in "Compact Homeomorphism Groups are Profinite" that if X is a compact space and $H(X)$ the autohomeomorphism group of X , with the compact-open topology, is also compact, then $H(X)$ is profinite. They asked whether the converse is true: if G is a profinite group then is there is a compact (preferably, connected) space X such that $H(X) = G$?

We survey what is known about this problem, and give some partial positive answers. (Received September 07, 2016)