Let \((X,T)\) and \((Y,f)\) be minimal Cantor systems. We say that \((Y,f)\) is a speedup of \((X,T)\) if \((Y,f)\) is topologically conjugate to \((X,S)\), where \(S\) is a minimal homeomorphism of \(X\) defined by
\[
S(x) = T^{p(x)}(x),
\]
with \(p : X \to \mathbb{Z}^+\). We study two families of dynamical systems, namely odometers and substitutions, and investigate the effects of a speedup on the original system. (Received September 16, 2015)