

# **On the Gradient Structure of a Non-autonomous Chafee–Infante Like Problem**

**Alexandre N. Carvalho,**

Universidade de São Paulo

In this work we prove that some non-autonomous scalar one dimensional semi-linear parabolic problems have an associated skew-product semigroup with gradient structure similar to that observed for the autonomous Chafee–Infante problem. The aim is to exhibit a non-autonomous problem for which the asymptotic dynamics can be fairly well described. The tools involved are symmetry, invariance, comparison and the lap-number.