

Workshop on Geometric Evolution Equations
Atelier sur les équations géométriques d'évolution
16–27 April/*Avril*, 2008

Compactness of spaces of compact Ricci solitons

Brian WEBER
Mathematics Department
SUNY Stony Brook
Stony Brook, NY 11794-3651
USA

brweber@math.sunysb.edu

Abstract

We show sequences of compact Ricci solitons converge to complete orbifold gradient solitons, assuming constraints on volume, energy, the soliton constant, and the “auxiliary constant”. In dimension 4, energy constraints are equivalent to upper bounds on the Euler number. We obtain necessary and sufficient conditions for limits to be compact.