

1135-53-2153

**Carolyn Gordon\*** ([csgordon@dartmouth.edu](mailto:csgordon@dartmouth.edu)), Dept of Mathematics, 6188 Kemeny, Dartmouth College, Hanover, NH 03755, and **Michael Jablonski**, University of Oklahoma. *Symmetry properties of homogeneous Ricci soliton metrics on solvable Lie groups*. Preliminary report.

We say that a left-invariant Riemannian metric on a Lie group is “maximally symmetric” if, up to automorphisms, its isometry group contains that of any other left-invariant metric. We also define a weaker notion of “infinitesimal maximal symmetry”. Homogeneous Einstein metrics of negative Ricci curvature on solvable Lie groups are maximally symmetric. In contrast, we show that expanding Ricci solitons on solvable Lie groups of real type need not be maximally symmetric but are always infinitesimally maximally symmetric. We relate these results to questions of stability of the Ricci flow. This is joint work with Michael Jablonski. (Received September 25, 2017)