

1042-53-210

**Megan M Kerr\*** ([mkerr@wellesley.edu](mailto:mkerr@wellesley.edu)), Department of Mathematics, Wellesley College, 106 Central St, Wellesley, MA 02481. *On a class of homogeneous spaces with nonnegative curvature.* Preliminary report.

In this work we consider compact Lie groups  $H \subset G$ . We study the existence of  $G$ -invariant metrics on  $G/H$  admitting nonnegative sectional curvature. We consider the case when there is an intermediate subgroup  $K$ :  $H \subset K \subset G$  such that  $G/H$  fibers over  $G/K$ .

We build on the work of L. Schwachhöfer and K. Tapp [[arXiv:math.DG/0804.3729v2](https://arxiv.org/abs/math/0804.3729v2)], to further understand when a homogeneous space  $G/H$  admits a continuous family of homogeneous metrics of nonnegative curvature. (Received August 19, 2008)