

GENERALIZED RICCI FLOW ON ALIGNED HOMOGENEOUS SPACES

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ABSTRACT. The fixed points of the generalized Ricci flow are the Bismut Ricci flat metrics, i.e., a generalized metric (g, H) on a manifold M , where g is a Riemannian metric and H a closed 3-form, such that H is g -harmonic and $\text{Rc}(g) = \frac{1}{4}H_g^2$. Given two standard Einstein homogeneous spaces G_i/K , where each G_i is a compact simple Lie group and K is a closed subgroup of them holding some extra assumption, we consider $M = G_1 \times G_2/\Delta K$. Recently, Lauret and Will proved the existence of a Bismut Ricci flat metric on any of these spaces. We proved that this metric is always asymptotically stable for the generalized Ricci flow on M among a subset of G -invariant metrics and, if $G_1 = G_2$, then it is globally stable.

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