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Fabrizio Donzelli* (fabrizio@math.miami.edu) and **Shulim Kaliman**. *Algebraic Density Property of Homogeneous Spaces*.

Let X be an affine algebraic variety with a transitive action of the algebraic automorphism group. Suppose that X is equipped with several non-degenerate fixed point free SL_2 -actions satisfying some mild additional assumption. Then we show that the Lie algebra generated by completely integrable algebraic vector fields on X coincides with the set of all algebraic vector fields. (Received September 14, 2008)