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Ramesh Sharma* (rsharma@newhaven.edu), 300 Boston Post Rd., West Haven, CT 06516, and
Amalendu Ghosh. *Non-trivial Ricci solitons on 3-D Sasakian manifolds and their obstruction to compactness.*

We show that, if a 3-dimensional Sasakian metric is a non-trivial Ricci soliton, then it is expanding and homothetic to the standard Sasakian metric on the Heisenberg group nil^3 . We also show that the potential vector field leaves the characteristic vector field and the fundamental collineation invariant (upto a constant multiple). Finally, we will point out that the Ricci soliton would pose as an obstruction to the compactness of the Sasakian manifold. (Received January 05, 2011)