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The properties of infinite measure-preserving rank-one transformations have proven to be very different from those of finite rank-one transformations, where the behavior of products is well understood. Adams, Friedman and Silva have constructed rank-one (hence ergodic) infinite measure-preserving transformations T such that $T \times T$ is not conservative (or recurrent). In this talk, we prove that for all rank-one transformations T , the product $T \times T^{-1}$ is always conservative, using the notion of descendants in constructing rank-one transformations, along with probabilistic methods. We also show that the situation is different in countable state Markov shifts. (Received September 16, 2014)