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Aaron W. Brown* (brown@math.psu.edu), McAllister Building, Mathematics Department, Penn State University, University Park, PA 16802, and **Federico Rodriguez Hertz**. *Measure rigidity for random surface dynamics*. Preliminary report.

We consider a group Γ of C^2 surface diffeomorphisms preserving a probability measure μ . Under the additional assumptions of positive entropy and the absence of a μ -measurable, Γ -invariant vector field, we show μ is absolutely continuous. In the case μ is a stationary measure, we show either the stable vector field for a typical word is Γ -invariant, or μ is SRB. (Received February 19, 2013)