1162-35-10 **Hakima Bessaih*** (bessaih@uwyo.edu), Department of Mathematics & Statistics, Dept. 3036, 1000 E. University Ave., Laramie, WY 82071, and **Benedetta Ferrario**. *Invariant measures for stochastic damped 2D Euler equation.*

We study a two-dimensional Euler equation, damped by a linear term and driven by an additive noise. The existence of weak solutions has already been studied; pathwise uniqueness is known for solutions that have bounded vorticity. We prove the Markov property and the existence of an invariant measure in the space of bounded vorticity. Since this is not a Polish space, we cannot apply the classical tools found in the literature but we develop a Krylov-Bogoliubov's type method working with the weak star and the bounded weak star topologies. (Received July 15, 2020)