We prove the existence and uniqueness of invariant measures for the fractional stochastic Burgers equation (FSBE) driven by fractional power of the Laplacian and space-time white noise. We show also that the transition measures of the solution converge to the invariant measure in the norm of total variation. To this end we show first two results which are of independent

interest: that the semigroup corresponding to the solution of the FSBE is strong Feller and irreducible