Yaozhong Hu* (yhu@ku.edu) and Khoa Le. Density of parabolic Anderson field. Preliminary report.

Let $u$ satisfy the stochastic heat equation $\frac{\partial}{\partial t} u = \frac{1}{2} \Delta u + u \dot{W}$, where $\Delta$ is the Laplacian and $W$ is a general Gaussian noise. It is known that under certain condition, the probability law of $u(t,x)$ has a density with respect to Lebesgue measure. We shall study some asymptotic properties of this density. (Received February 17, 2016)