

1125-60-391

Randall Herrell, Renming Song, Dongsheng Wu* (dongsheng.wu@uah.edu) and **Yimin Xiao**. *Sample Paths of the Solution to the Fractional Stochastic Heat Equation Driven by a Fractional-Colored Noise*. Preliminary report.

Let $\{u(t; x); t \in [0; T], x \in \mathbf{R}^d\}$ be the solution to the linear fractional stochastic heat equation driven by a fractional noise in time with correlated spatial structure. We first prove the existence and uniqueness of the solution process u , then study various path properties of u with respect to the time and to the space variable, respectively. In particular, we derive exact uniform moduli of continuity and Chung- type laws of iterated logarithm. (Received August 31, 2016)