1125-60-1122 **Sunday A Asogwa*** (saa0020@auburn.edu), 221 Parker hall, Department of Mathematics &, Statistics, Auburn University, Auburn, AL 36849, and **Erkan Nane**. *Intermittency fronts for space-time fractional stochastic partial differential equations in* $(d+1)$ *dimensions.* Preliminary report.

In this talk, we study the intermittency fronts of the following space-time fractional stochastic heat type equation

$$\partial_t^\beta u_t(x) = -\nu(-\Delta)^{\alpha/2} u_t(x) + I_t^{1\beta}[\sigma(u)\,\dot{W}\,(t,x)]$$

in $(d+1)$ dimensions, where $\nu > 0$, $\beta \in (0,1)$, $\alpha \in (0,2]$, $d < \min\{2, \beta^{-1}\}\alpha$, ∂_t^β is the Caputo fractional derivative, $-(\Delta)^{\alpha/2}$ is the generator of an isotropic stable process, $\dot{W}\,(t,x)$ is space-time white noise, and $\sigma : \mathbb{R} \to \mathbb{R}$ is Lipschitz continuous. The fact that these fronts grow linearly with time is quite surprising here since the operator studied here is fractional in time. Precisely, for the choices of $\alpha = 2$ and $d \in \{1,2,3\}$, we prove intermittency fronts for higher moments; which essentially measure how fast the peaks spread in space. (Received September 15, 2016)