1145-60-2903 **Jebessa B Mijena*** (jebessa.mijena@gcsu.edu), 190 Will PL, Milledgeville, GA 31061, and **Erkan Nane**. *Intermittence and space-time fractional stochastic partial differential equations.*

We consider 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 time fractional stochastic heat type equations might be used to model phenomenon with random effects with thermal memory. We prove: (i) absolute moments of the solutions of this equation grows exponentially; and (ii) the distances to the origin of the farthest high peaks of those moments grow exactly linearly with time. These results extend the results of Foondun and Khoshnevisan and Conus and Khoshnevisan on the parabolic stochastic heat equations. (Received September 25, 2018)