

1109-35-36

Erkan Nane* (ezn0001@auburn.edu), 221 Parker Hall, Auburn, AL 36830. *Intermittence and time fractional stochastic partial differential equations.*

I will consider time fractional stochastic heat type equations. The time fractional stochastic heat type equations might be used to model phenomenon with random effects with thermal memory. In this talk I discuss: (i) Existence and uniqueness of solutions and existence of a continuous version of the solution; (ii) absolute moments of the solutions of this equation grows exponentially; and (iii) the distances to the origin of the farthest high peaks of those moments grow exactly linearly with time. These results extend the results of Mohammud Foondun and Davar Khoshnevisan, (Intermittence and nonlinear parabolic stochastic partial differential equations, *Electron. J. Probab.* 14 (2009), no. 21, 548–568) and Conus and Khoshnevisan (On the existence and position of the farthest peaks of a family of stochastic heat and wave equations, *Probab. Theory Related Fields* 152 (2012), no. 3-4, 681–701) on the parabolic stochastic heat equations.

These results are our recent joint work with Jebessa B Mijena. (Received January 14, 2015)