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Habib Ouerdiane* (habib.ouerdiane@fst.rnu.tn), Department of Mathematics, Faculty of Sciences of Tunis, Campus universitaire, 1060 Tunis, Tunisia. *Generalized fractional evolution equation*. Preliminary report.

In this talk we study the generalized Riemann-Liouville (resp. Caputo) time fractional evolution equation in infinite dimensions. We show that the explicit solution is given as the convolution between the initial condition and a generalized function related to the Mittag-Leffler function. The fundamental solution corresponding to the Riemann-Liouville time fractional evolution equation does not admit a probabilistic representation while for the Caputo time fractional evolution equation it is related to the inverse stable subordinators. (Received December 07, 2007)