TIME FRACTIONAL EQUATIONS AND PROBABILISTIC REPRESENTATION

Zhen-Qing CHEN *University of Washington, USA*, E-mail: zqchen@uw.edu

Abstract: Time-fractional diffusion equation can be used to model the anomalous diffusions exhibiting subdiffusive behavior, due to particle sticking and trapping phenomena. In this talk, I will discuss general fractional-time derivatives and probabilistic representation of solutions of the corresponding parabolic equations in terms of the corresponding inverse subordinators with or without drifts. An explicit relation between occupation measure for Markov processes time-changed by inverse subordinator in open sets and that of the original Markov process in the open set will also be given.