

Title: Stochastic parabolic equation and Dirichlet boundary condition.

Abstract: One of N.V. Krylov's work among many significant ones he achieved is setting off the quantitative regularity theory of stochastic parabolic equations with boundary and the Dirichlet condition. It goes with a carefully designed weighted distance to the boundary, aiming to explain the unstable derivatives. In this talk we discuss the story after with the particular direction in which we allow some part(s) of the boundary to be wedged or conic. Two essentially different methods cooperate. one handles conic parts and the other does smooth parts. Especially for the former, refined understanding of the Green's function is required. We look into this. The contents of the talk is based on the co-work with K.H. Kim, Jinsol Seo, P.A. Cioica-Licht, F. Lindner.