Stochastic partial differential equations with anisotropic operator

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Deterministic anisotropic differential equations have been studied actively in recent years and widely used in various applications, for instance biology, geophysics and fluid mechanics. But the study on the stochastic version of anisotropic differential equations is rare, though stochastic isotropic partial differential equations have been well studied. In this presentation, under weaker assumptions, we will investigate the stochastic partial differential equations with anisotropic p-Laplace operator, which particularly include stochastic anisotropic reaction-diffusion equations and stochastic anisotropic Navier-Stokes equations.