

Random Models on Regularity-Integrability Structures

jeudi 7 mars 2024 15:50 (50 minutes)

In the study of singular SPDEs, it has been a challenging problem to obtain a simple proof of a general probabilistic convergence result (BPHZ theorem). Differently from Chandra and Hairer's Feynman diagram approach, Linares, Otto, Tempelmayr, and Tsatsoulis recently proposed an inductive proof based on the spectral gap inequality by using their multiindex language. Inspired by their approach, Hairer and Steele also obtained an inductive proof by using the regularity structure language. In this talk, we introduce an extension of the regularity structure including integrability exponents, and provide a simpler proof of BPHZ theorem. This talk is based on a joint work with Ismael Bailleul (Université de Bretagne Occidentale).

Orateur: Prof. HOSHINO, Masato (Osaka University)