Abstract Book RT-Matrisk 2025

## Talk 17: Aurélien Deya (Université de Lorraine)

Title: A SPDE Model: The  $\Phi_3^4$  Equation Associated with the Harmonic Oscillator

**Abstract.** I will present the results of a recent article written in collaboration with Reika Fukuizumi (Tokyo) and Laurent Thomann (Nancy), concerning the  $\Phi_3^4$  equation associated with the harmonic oscillator. We shall begin by discussing the background and physical motivations behind this model, before detailing the various steps of the pathwise approach used in the analysis.