

Sonderforschungsbereich 1060

The Mathematics of Emergent Effects

Einladung zu einem Vortrag im SFB-Seminar

Prof. Dr. Massimiliano Gubinelli

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spricht zum Thema

**Singular Stochastic PDEs and
paracontrolled distributions**

Zeit: Dienstag, den 4. November 2014, 14.15 Uhr

Ort: Lipschitz-Saal 1.016, Endenicher Allee 60

Kaffee/Tee: anschl. im Plückerraum 1.015

gez. **Karl-Theodor Sturm**

Abstract: Non-linear evolution problems perturbed by singular noise sources arise naturally as scaling limits of certain microscopic evolutions or homogenisation problems. The parabolic anderson model, the Kardar-Parisi-Zhang equation and the stochastic quantization equation are examples of such systems. Solving (or even giving a meaning to) these equations require a detailed understanding of the propagation of the stochastic perturbations via the non-linear evolution. I will explain how ideas and tools from harmonic analysis can be useful in this analysis and in the related problem of studying the convergence of the microscopic models to their scaling limits.