



# Lothar-Collatz-Kolloquium für Angewandte Mathematik

**Donnerstag, den 6. April 2017, um 17:15 Uhr, im Hörsaal 5**

**Prof. Dr. Marco Cicalese\***  
(TU München, Zentrum Mathematik – M7))

## ***Atomistic-to-continuum variational analysis of random lattice systems***

### **Zusammenfassung/Abstract:**

We give an overview of some recent results regarding the atomistic-to-continuum variational limit of some random lattice systems. In particular we discuss the problem of the stochastic homogenization of these systems under stationarity and/or ergodicity assumptions on the spatial distribution of the lattice points. Our analysis is motivated by microscopic models of polymeric materials giving rise in the continuum approximation to macroscopic theories for rubber elasticity and for the formation of Weiss domains in (possibly thin) magnetic composites.

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**<http://www.math.uni-hamburg.de/spag/angmath/kolloq/>**