



## Mathematics and CS Seminar

# Lorentz gas with small scatterers; some non-standard Limit Theorems

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A main theme in smooth ergodic theory is to explain and rigorously prove the occurrence of statistical laws for deterministic dynamical systems. If an invariant measure is taken to consider a dynamical system as stochastic process, then this process is at best highly dependent. Lorentz gas is a model of uniform movement with elastic collisions on a grid of convex scatterers, used to describe the motion of electrons in a metal. In this talk, I want to discuss some limit theorems (non-standard Gaussian, local limit) that can be proven when not only times goes to infinity, but also the scatterer size goes to zero.

**Monday, April 22, 2024 05:00pm - 06:00pm**

Mondi 2 (I01.01.008), Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.