

Institute for Applied Mathematics, Bonn University

## Oberseminar Stochastik

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## Characteristic of a second class particle

The totally asymmetric simple exclusion process (TASEP) is a microscopic analogue of Burgers equation. The characteristics of Burgers equation play an important role in its solution. The second class particle in TASEP mirrors the role of a microscopic characteristic. Although much is known about the macroscopic behaviour of the second class particle, it is of interest to understand its fluctuations. I will discuss the behaviour of the second class particle when the initial conditions of TASEP converge under KPZ scaling. The second class particle has a scaling limit, which can be described in terms of geometric concepts arising in the KPZ universality class.

Joint work with Balint Virag.