



universität  
wien

Fakultät für Mathematik

## Mathematisches Kolloquium

Mittwoch, 21. Juni 2017

Sky Lounge

### EINLADUNG

Laure Saint-Raymond

(ENS Lyon)

**"Propagation of chaos and irreversibility in gas dynamics"**

## **"Propagation of chaos and irreversibility in gas dynamics"**

### **Abstract:**

*I will review various contributions on the fundamental work of Lanford deriving the Boltzmann equation from hard-sphere dynamics in the low density limit.*

*I will focus especially on the assumptions made on the initial data and on how they encode irreversibility.*

*We will see that the impossibility to reverse time in the Boltzmann equation (expressed for instance by Boltzmann's H-theorem) is related to the lack of convergence of higher order marginals on some singular sets.*

**15.45 Uhr: Kaffeejause**

**16.15 Uhr: Vortrag**

**vinum cum pane im Anschluss**

Herwig Hauser  
Christian Krattenthaler