



universität  
wien

Fakultät für Mathematik

## ANTRITTSVORLESUNG

### Mathematisches Kolloquium

**Mittwoch, 22. Jänner 2020**

**Sky Lounge**

## EINLADUNG

**Sara Merino Aceituno**

*(Uni Wien)*

**„The emergent world: linking large-scale phenomena  
with small-scale dynamics“**

## **"The emergent world: linking large-scale phenomena with small-scale dynamics"**

### **Abstract:**

*How do birds self-organise into flocks? How a populations' behavior is the result of the individuals' behavior? How do cells organise into tissues? How natural networks, like capillaries, are created? All these are examples of emergent phenomena: from the interactions between many particles or agents, large-scale structures arise at much larger scale than the individuals' sizes. We will see how we can investigate emergence with kinetic theory and the numerous challenges ahead of us.*

**15.45 Uhr: Kaffeejause**

**16.15 Uhr: Vortrag**

**Kleines Buffet im Anschluss**

Roland Donninger  
Christian Krattenthaler