

Fakultät für Mathematik



## Mathematisches Kolloquium

### EINLADUNG

**Prof. Dr. Sebastian van Strien**

(Imperial College, London)

**“Fictitious games: a class of piecewise smooth dynamical system with very interesting properties”**

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Abstract:

*In economics, biology and game theory, several dynamical systems were introduced to model learning behaviour. One of these systems, best response dynamics (also referred to as fictitious games), was already introduced in the 1950's and models a situation where two players continuously optimise their strategies in order to optimise their payoff. These dynamical systems are piecewise linear, and turn out to have remarkably rich mathematical properties. This talk will aim to give an overview of some recent results, and concentrate on an intriguing relationship between zero-sum games, Hamiltonian dynamics, translation flows in higher dimensions, and a conjecture of Josef Hofbauer.*

**Zeit: Mittwoch, 30. September 2015  
15.45 Uhr Kaffeejause,  
16:15 Vortrag**

**Ort: Fakultät für Mathematik,  
Oskar-Morgenstern-Platz 1,  
Besprechungszimmer im 3. Stock**

Henk Bruin  
Harald Rindler