



universität  
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Fakultät für Mathematik

## Mathematisches Spezialkolloquium

Montag, 3. Juni 2019

Sky Lounge

### EINLADUNG

Wilhelm Schlag

(Yale)

„On the Bourgain-Dyatlov fractal uncertainty principle I + II“

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**Abstract:**

*I will discuss uncertainty principles, including the Bourgain-Dyatlov breakthrough result from late 2016. Using harmonic analysis of the type which arises in the Beurling-Malliavin theorem, they showed (in a quantitative way) that a function on the line cannot be supported on fractal sets both in the physical and Fourier variables. The higher-dimensional version of this theorem remains open. I will describe some partial progress by Rui Han and myself.*

**09.30 Uhr: Kaffeejause**

**10.00 Uhr: On the Bourgain-Dyatlov fractal uncertainty principle I**

**11.00 Uhr: On the Bourgain-Dyatlov fractal uncertainty principle II**

Roland Donniger  
Christian Krattenthaler