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Fakultät für Mathematik

## ANTRITTSVORLESUNG

### Mathematisches Kolloquium

Mittwoch, 11. Mai 2022

Sky Lounge

## EINLADUNG

**Matthias Aschenbrenner**

(Universität Wien)

“Hardy’s dream”

## “Hardy’s dream”

### **Abstract:**

*I will introduce an algebraic approach to asymptotic analysis, which goes back to G. H. Hardy but has its roots in the 19th century, and which has found uses in real analytic geometry and dynamical systems, computer algebra, ergodic theory, and various other fields of mathematics. In the last few years, we have obtained some decisive results on solving systems of algebraic differential equations in this setting, leading to rich classes of non-oscillating differentiable real-valued functions which partially substantiate “Hardy’s dream” (Ecalte). These results are obtained through a fruitful interplay between analysis, algebra, and logic, which I will outline in this talk. (No prior knowledge of mathematical logic will be assumed.)*

**15.45 Uhr: Kaffeejause**

**16.15 Uhr: Vortrag**

**Kleines Buffet im Anschluss**

Radu Ioan Bot

<https://univienne.zoom.us/j/65619931234?pwd=WTdKV1Z4NGxBeklkT0RtNzltZEhBUT09>