

Im

## **Oberseminar Analysis**

hält

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einen Vortrag zum Thema

# **Construction of Laplacians on post critically finite self-similar structures**

Abstract:

The notions of self-similar structure, respectively, of the critical set and of the post critical set of a self-similar structure, have been introduced by Jun Kigami in order to give a topological description of self-similar sets. In the first part of the talk, we give the definitions of these notions, illustrating them in case of a famous fractal, namely the Sierpinski triangle. Afterwards we turn our attention to limits of discrete Laplacians (or, equivalently, Dirichlet forms) on an increasing sequence of finite sets, thus making the link to the last part of the talk. This part is devoted to the construction of Laplacians on post critically finite self-similar structures. One of the major objectives of the talk is to point out how one can define differential operators (like the Laplacian) on fractals, i.e., on sets that, in general, do not have any smooth structure.

Datum: **Freitag, 6. Juni 2025**

Zeit: **13:00 Uhr**

Raum: **WIL A 317**

Kontakt: Prof. Dr. Ralph Chill

Alle Interessent:innen sind herzlich eingeladen