



Sommersemester 2023

# Dresdner Mathematisches Seminar

**Prof. Dr. Immanuel Halupczok**

Heinrich-Heine-Universität Düsseldorf, Mathematisches Institut

**Are some singular points more singular than others?**

## Abstract

The goal of singularity theory is to get a better understanding of the non-smooth points of geometric objects. For example, a surface (say, given as the zero set of a polynomial in  $\mathbb{C}[x,y,z]$ ) might have a one-dimensional subset of singular (i.e., non-smooth) points. Among those, there can be a zero-dimensional subset of "even more singular points". There are various classical ways to define what one means by "even more singular", but they tend to be either unintuitive or not very useful. In my talk, I will present a new definition without those drawbacks. This builds on a notion of "infinitesimal neighbourhood" of a point, which I will also explain. This is joint work with David Bradley-Williams.

Freitag, 21.04.2023, 13:00 Uhr – Willers-Bau, Raum C 129

Leitung: Prof. Dr. Arno Fehm

Nach dem Vortrag findet **ab ca. 14:00 Uhr** ein gemeinsames **Kaffee-/Teetrinken** vor Hörsaal **WIL C 307 (!)** statt.