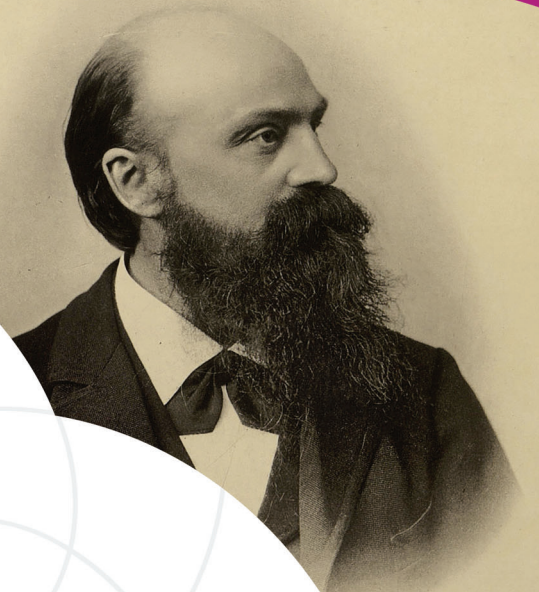




Universität
Münster



Colloquium Wilhelm Killing

How looks a singular space in a small neighbourhood of a point?

Prof. Dr. Anne Pichon (Aix Marseille University)
11 January 2024 | 2:15 pm | M5

Consider a subspace X of \mathbb{R}^n defined by polynomial equations. Suppose we fix a point p on X . When the implicit function theorem applies at p , the answer to the question in the title becomes clear! However, what happens when p is singular? A classical result ensures that X is locally *topologically conical*: for every sufficiently small $\epsilon > 0$, the intersection of X with the ball of radius ϵ around p is homeomorphic to the cone formed over the intersection of X with the boundary sphere. Nevertheless, X is generally not *metrically conical*: there are parts of it which shrink faster than linearly when ϵ tends to 0. A natural problem is then to build classifications of the germs up to local bi-Lipschitz homeomorphism. I will give an introductory talk on this very active topic at the crossing point between metric topology and algebraic geometry.

Zoom Meeting ID: 913 7047 4263

Tea time starts at 3:15 pm in the Cluster Common Room (Orléans-Ring 10, ground floor).

living.knowledge



FACHBEREICH 10
MATHEMATIK UND
INFORMATIK



CRC 1442
GEOMETRY:
DEFORMATIONS
AND RIGIDITY



MM
Mathematics
Münster
Cluster of Excellence