WWU
MÜNSTER

Colloquium Wilhelm Killing

Shape optimization for attractive-repulsive energies

Prof. Dr. Riccardo Cristoferi (Radboud University)
12 October 2023 | 2:15 pm | M5

Patterns are everywhere! Their regularity is both fascinating and intriguing: if from an aesthetic point of view we are pleased when admiring them, from a mathematical point of view we want to explain this regularity.

In this talk we will shed some light on mechanisms behind pattern formation. In particular, we focus on the formation of a single shape. We work in a variational framework, namely we view patterns as configurations having least energy. The optimal shape will then be the compromise of the effects of competing forces. The prototype is having an attractive and a repulsive force. We will consider several variants of such terms having different features, and investigate how this affects the optimal shape.

This talk is based on a series of works with Marco Bonacini (Università di Trento), Maria Giovanna Mora (Università di Pavia), Lucia Scardia (Heriot-Watt University), and Ihsan Topaloglu (Virginia Commonwealth University).

Zoom Meeting ID: 668 0993 5905
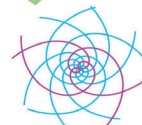Tea time starts at 3:15 pm in the Cluster Common Room (Orléans-Ring 10, ground floor).

FACHBEREICH 10
MATHEMATIK UND
INFORMATIK

demain

CRC 1442 GEOMETRY:
DEFORMATIONS
AND RIGIDITY

MM
Mathematics
Münster
Cluster of Excellence

living.knowledge