Heiko von der Mosel, RWTH Aachen
Titel: Symmetric criticality with applications in geometric knot theory

Abstract: After reviewing the principle of symmetric criticality by R. Palais, its advantages and limitations, I will talk about some recent applications of this principle in geometric knot theory: 1. Existence of at least two critical knots in infinitely many knot classes for various knot energies (joint work with A. Gilsbach), 2. Symmetric elastic knots (joint work with A. Gilsbach and Ph. Reiter), 3. Symmetric optimal planar immersions with prescribed Arnold invariants (work of my Ph.D. student A. Lagemann).