



Leibniz
Universität
Hannover

Oberseminar
Institut für Algebraische Geometrie

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Euler obstructions and the topology of
singularities

The Euler obstruction $\text{Eu}^\omega(X, 0)$ of a holomorphic 1-form ω on a reduced complex analytic germ $(X, 0) \subset (\mathbb{C}^n, 0)$ with an isolated zero in a stratified sense was introduced by W. Ebeling and S. Gusein-Zade. It plays the role of the Milnor number in stratified Morsifications of functions $f: (\mathbb{C}, 0) \rightarrow (\mathbb{C}, 0)$ whose restriction $f|_{(X, 0)}$ has an isolated singularity. We give an analytic formula for $\text{Eu}^\omega(X, 0)$ as a “derived homological index” which also allows for explicit computations directly from f and without choosing any Morsification. Time permitting, we will discuss the generalization of this formula for complete intersections on $(X, 0)$ and its implications for the vanishing topology of determinantal singularities.

Donnerstag, 17.12.2020

16:30 - 17:30

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Alle Interessierten sind herzlich eingeladen.