

Alexander Arnd Kubasch

Title: On the Nonpositivity of the Lattice Cohomology of Plane Curve Singularities

Abstract: The lattice cohomology of a curve singularity – introduced by Ágoston and Némethi earlier this year – is a categorification of the delta-invariant and conjectured to be functorial with respect to flat deformations. We show that in the case of plane curve singularities the n-grading of the reduced cohomology is – just as in the case of the topological lattice cohomology of normal surface singularities – nonpositive. The proof is based on an upper bound for the Thurston norm of an algebraic link with the orientation on some of its components reversed. Joint work with A. Némethi and G. Schefler