

Tamás Ágoston

**Title:** Generalizations of lattice cohomology

**Abstract:** We are going to discuss some recent developments regarding the lattice cohomology of singularities: in particular the introduction of a method to produce analogous invariants from certain general types of algebraic/combinatorial structures, and how that can be used to construct invariants in a variety of situations, e.g. giving us an analytic analogue to the classical, topological theory in the case of surface singularities.