ALGEBRA SEMINARS

Monomial posets and their Lefschetz invariants

By

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Abstract: The Euler-Poincare characteristic of a given poset X is defined as the alternating sum of the order of the set of chains Sd(n,X) with cardinality n+1 over natural number n. Given a finite gorup G, Thevenaz extended this definition for G-posets and defined the Lefschetz invariant of a G-poset X as the alternating sum of the G-sets of chains Sd(n,X) with cardinality n+1 over natural number n which is an element of Burnside ring B(G). Let C be an abelian group. We will introduce the notions of C-monomial G-posets and C-monomial G-sets, and state some of their categorical properties. The category of C-monomial G-sets gives a new description of the C-monomial Burnside ring B(C,G). We will also introduce the Lefschetz invariants of C-monomial G-posets, which are elements of B(C,G). The motivation is showing the well-definedness of C-monomial tensor induction. This is a joint work with Serge Bouc.

Date: October 8, 2018
Time: 10:40 – 11:50
Place: SA141 Mathematics Seminar Room

* Tea and cookies will be served before the talk. All are most cordially invited.