

## **TOPOLOGY SEMINARS**

## Free (Z/p)^n complexes

By

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**Abstract:** Carlsson conjectured that the sum of mod-p Betti numbers of a finite, free  $(Z/p)^n$ -CW complex is at least 2<sup>n</sup>. For p=2, he connected chain complexes with a free  $(Z/p)^n$ -action to DG modules over a polynomial ring in order to establish lower bounds using commutative algebra and algebraic geometry. In this talk, I will report on joint work with Jeremiah Heller on how to extend this connection to commutative algebra to all primes, and on joint work with Henrik Rüping about non-realizability of  $(Z/p)^n$ -equivariant chain complexes.

Date: December 3, 2018 <u>Time:</u> 13:40 – 15:00 <u>Place:</u> SA141 Mathematics Seminar Room

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