

Ben Gurion University of the Negev  
Department of Mathematics

Algebraic Geometry and Number Theory (AGNT)  
Spring 2019

Wednesdays 15:10-16:25 in room -(minus) 101, building 58b

A map of campus is available here: <https://in.bgu.ac.il/en/Pages/maps.aspx>

Meetings:

3 April 2019 Azez Kharoof (University of Haifa) Higher order Toda brackets

10 April 2019 Eli Matzri (Bar Ilan)

1 May 2019

15 May 2019 Yakov Varshavsky (HUJI)

22 May 2019 Sergey Fomin (University of Michigan)

29 May 2019

5 June 2019 Dan Edidin (University of Missouri)

12 June 2019

19 June 2019 Lior Bary-Soroker (TAU)

Abstracts:

Azez Kharoof (University of Haifa)  
Higher order Toda brackets

Toda brackets are a type of higher homotopy operation. Like Massey products, they are not always defined, and their value is indeterminate. Nevertheless, they play an important role in algebraic topology and related fields:

Toda originally constructed them as a tool for computing homotopy groups of spheres. Adams later showed that they can be used to calculate differentials in spectral sequences.

After reviewing the construction and properties of the classical Toda bracket, we shall describe a higher order version. The construction will be explained using simple examples for chain complexes.