

# 연세 대수기하학 세미나

## Yonsei Algebraic Geometry Seminar

Date 2018년 3월 30일, ~~4pm~~ **3 pm**



Location 이과대학 과학관 254

Speaker **Kangjin Han (DGIST)**

Title: Singular loci of secant varieties and its application to tensors

**Abstract:** Let  $X$  be an irreducible closed subvariety in a projective space. There is so-called a 'secant construction' which allows a natural way to construct a new variety from a given algebraic variety. In general, on singular loci of secants, it is classically known that the singular locus of  $r$ -th secant of  $X$  contains the previous one. Thus, a natural question is to ask its properness in the containment. For matrices, the variety of matrices with rank bounded by  $r$  is singular exactly in the variety of matrices with rank bounded by  $r-1$ . But, for tensors, there are some known examples where the inclusion is strict.

In this talk, we introduce basic notions, review some known results briefly, and explain a recent result on set of rank 3 symmetric tensors by the author. We also consider some application of the result to a problem of tensor decomposition.

EVERYONE IS WELCOME.

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