## Philadelphia Area Number Theory Seminar

## Heekyoung Hahn Duke University and Institute for Advanced Study

## Langlands' beyond endoscopy proposal and related questions on algebraic groups and combinatorics

Abstract: Langlands' beyond endoscopy proposal for establishing functoriality motivates the study of irreducible subgroups of  $GL_n$  that stabilize a line in a given representation of  $GL_n$ . Such subgroups are said to be detected by the representation. In this talk we present a family of results when the subgroup is a classical group in the important special case where the representation of  $GL_n$  is a subrepresentation of the triple tensor product representation  $\otimes^3$ . If time permits, we will prove some partition identities arising in this context and discuss their relation to explicit Satake inversion.

> Wednesday, April 18, 2018 2:40 - 4:00 PM

Bryn Mawr College Department of Mathematics Park Science Center **328** Tea and refreshments at 2:20PM in Park 339