



# Number Theory Seminar

## On branching problems for classical $p$ -adic groups

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### Abstract

The local Gan-Gross-Prasad conjectures predict the branching laws for tempered representations of classical groups over local fields in terms of arithmetic data. For  $GL$  over  $p$ -adic fields, it is a well-known result that every tempered representation of  $GL(n - 1)$  appears with multiplicity one in a tempered representation of  $GL(n)$ . Dipendra Prasad suggests homological variations of those branching problems, and in particular, conjectures that there is no higher extension between generic representations of  $GL(n + 1)$  and  $GL(n)$ . In this talk, we shall give a positive answer to the question. This is a joint work with Gordan Savin.

**Date:** May 7, 2018 (Monday)

**Time:** 11:00am - 12:00noon

**Venue:** Room 210, Run Run Shaw Bldg., HKU