

# ALGEBRA SEMINAR

## *On Splitting and Replicating of Operads*

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ABSTRACT: Almost twenty years ago, Loday introduced the concept of a dendriform algebra with motivation from algebraic K-theory. Later it was found to play an independent role that “splits” the associative operation into two pieces. Soon afterwards several other examples of “splitting” of the associativity were found: tridendriform algebra, quadri-algebra etc, as well as splitting of other binary operations. For example, a classical structure called pre-Lie algebra is found to play the role of splitting the Lie product. It was only until recently that the precise meaning of “splitting” is made clear in the context of operads, together with its relation with the Rota-Baxter operator and Manin black product. There is also a dual side of the splitting called replicating. We will discuss results in this direction in the talk.

MONDAY, APRIL 7, 2014

1:30 – 2:30 PM

ROOM 617, WACHMAN HALL  
DEPARTMENT OF MATHEMATICS