



1 1  
1 0 2  
1 0 0 4

Leibniz  
Universität  
Hannover

# Oberseminar zur Algebra und Algebraischen Kombinatorik

**Dr. Raquel Simões**

(Riemann Fellow, Leibniz Universität Hannover)

## “Hom-configurations in triangulated categories generated by spherical objects”

Calabi-Yau triangulated categories appear in many branches of mathematics and physics, for example as cluster categories in representation theory. Much work has been done on understanding triangulated categories of positive CY dimension, particularly those which are 2-CY or 3-CY.

Thus far, little is understood about triangulated categories of negative CY dimension. Examples of such categories arise out of the work of Riedtmann on the classification of selfinjective algebras and were one of the original motivations in the development of cluster-tilting theory. In this setting Hom-configurations are the natural objects of study, and their behaviour in a certain orbit category of the derived category with negative CY dimension is highly reminiscent of that of cluster-tilting objects. In this talk, we consider a generalization of Hom-configurations in triangulated categories generated by spherical objects with negative CY dimension. We will give a combinatorial classification of these configurations and explain links with noncrossing partitions. This talk is a report on work in progress.

**Montag, 03.06.2013**

**ab 14:15 Uhr, Raum a410**

Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

gez. Prof. Dr. C. Bessenrodt

Institut für Algebra, Zahlentheorie  
und Diskrete Mathematik