Oberseminar zur
Algebra und Algebraischen Kombinatorik

Dr. Sarah Scherotzke
(Universität Bonn)

"The Integral Cluster Category"

In my talk, we will consider the question when orbit categories of triangulated
categories are again triangulated. I will present some examples where this fails and give
a sufficient condition proven by Bernhard Keller for the orbit category of a triangulated
category to have a natural triangulated structure. Applying this result to the Cluster
category associated to a finite acyclic quiver over a field shows that it is triangulated.
In joint work with Bernhard Keller, we proved that the Cluster category defined over
certain commutative rings are triangulated, we classify the Cluster-tilting objects and
show that they are linked by mutation. The proof in the integral case does not use
Keller's criteria and requires a different approach of which I will give sketch.

Montag, 07.11.2011
ab 14:30 Uhr, Raum a410
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

gez. Prof. Dr. C. Bessenrodt

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