

# **Lutz Hille**

## **Cluster algebras with three vertices and the Markov equation**

**TIME:**

30 Oct 2006, 16:00 - 18:00

**LOCATION:**

FU-Berlin, Institut für Mathematik  
Arnimallee 3, Rm. 119

The classical Markov equation  
plays a role in the classification of exceptional vector bundles on the projective plane: the solutions are the possible ranks of exceptional vector bundles. A similar equation  
appears in the theory of cluster algebras. The value of  
characterizes cluster-acyclic triples  
. We give a short introduction to cluster algebras and explain why the Markov equation appears. Moreover, we relate both problems to the corresponding derived categories.

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