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CENTRE for QUANTUM GEOMETRY of MODULI SPACES

DEPARTMENT OF MATHEMATICAL SCIENCES, FACULTY OF SCIENCE, AARHUS UNIVERSITY, DENMARK

PROFESSOR

• VOLODYMYR MAZORCHUK •

UNIVERSITY OF UPPSALA

MASTER CLASS

• CATEGORIFICATION •

21-27 October 2010



ADDITIONAL SPEAKERS:

SERGEY ARKHIPOV, UNIVERSITY OF TORONTO &
CATHARINA STROPPEL, UNIVERSITY OF BONN

PRELIMINARY ABSTRACT:

The term categorification was introduced by Louis Crane and describes the process of replacing set-theoretic objects and statements by category-theoretic analogues. The idea of categorification is very useful for the study of invariants of topological and algebraic objects. The aim of these lectures is to describe the idea, formalism and give many examples of categorification modeled using functorial actions on the Bernstein-Gelfand-Gelfand category \mathcal{O} .

Two principal applications are Khovanov homology of oriented links and Broue's abelian defect group conjecture for the symmetric group.



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Registration deadline 4 October 2010

Limited financial support is available for PhD students

