FIM Minicourse

Olivier Schiffmann (Université Paris-Sud, Orsay)

Hall algebras, Cherednik algebras and W-algebras

March 21 - April 4, 2012
Wednesday, March 21., 10:15 - 12:15h
Monday, March 26, 15:15 - 17:15
Wednesday, March 28, 10:15 - 12:15
Monday, April 2, 15:15 - 17:15
Wednesday, April 4, 10:15 - 12:15

HG G 19.2, ETH Zürich, Rämistrasse 101

Abstract

The aim of these lectures is to describe a relation between Cherednik algebras of GL_n and W-algebras of type GL_n, leading to a proof of a particular case of the AGT conjecture for gauge group $SU(n)$ and instantons on $\mathbb{C}^2$. This involves Hall algebras of curves (especially in genus one), and a particular instance of geometric Langlands duality, relating these Hall algebras to some commuting varieties.

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