

Institut Henri Poincaré
11 rue Pierre et Marie Curie, 75231 Paris cedex 05
String Theory in Greater Paris

Rencontres Théoriciennes
“Supergravité, théorie des cordes et théorie M”

Jeudi 6 Mars 2025, 11:30

Sylvain Lacroix

LPTHE

On the integrable structure of the WZW model

In this talk, I will discuss some preliminary results on the quantum integrable structure of the Wess-Zumino-Witten model. Focusing on the group $SU(2)$, I will give evidence for the existence of an infinite number of commuting higher-spin local charges built from the current algebra underlying this CFT. In the second half of the talk, I will discuss the diagonalisation of these commuting operators on the Hilbert space of the theory, formed by highest-weight representations of the current algebra. In particular, I will review a conjecture relating the spectrum of these operators to the properties of specific ODEs (within the so-called ODE/IM correspondence). This is based on work in progress with Adrien Molines.

Institut Henri Poincaré, salle 314, 3^{ème} étage

Retrouvez les activités de la communauté parisienne de théorie des cordes sur
<http://string.lpthe.jussieu.fr>
La liste de tous les séminaires en région parisienne est disponible sur
<http://string.lpthe.jussieu.fr/semparis>
