

SEMPARIS – Séminaires en région parisienne

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Séminaire de physique mathématique

Lundi 18 Juin 2018, 11 :00

IPHT, Salle Claude Itzykson, Bât. 774

Domaines : math-ph

Titre : *Affine Gaudin models and integrable field theories*

Orateur : **Sylvain Lacroix (ENS Lyon)**

Résumé : *In this seminar, we will discuss affine Gaudin models, which are integrable systems associated with Kac-Moody algebras of affine type.*

First, we will review how these models can be classically interpreted as integrable field theories in two dimensions. Conversely, we shall see that integrable sigma-models, which are typical examples of such theories, are realisations of classical affine Gaudin models.

In a second part, we will discuss results and conjectures about quantum affine Gaudin models, concerning the construction of higher degree quantum Hamiltonians and their diagonalisation through the Bethe ansatz. Finally, we will explore the possible relation of these results with the ODE/IM correspondence, using the language of affineopers.
