Séminaire de physique mathématique

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(voir dans annonce)

The action of the Virasoro algebra in quantum spin chains

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The Koo-Saleur generators were introduced in the early 90's as a discretized version of the Virasoro generators, built out of Temperley-Lieb generators. In this talk I will discuss recent work where the action of the Koo-Saleur generators in quantum spin chains is used to deduce the structure of the continuum-limit Virasoro modules. The focus of this talk will be XXZ spin chain at generic central charge, with some brief comments about loop models at generic central charge as well as the root of unity case. The XXZ spin chain is integrable, and the usage of the Bethe ansatz and Quantum Inverse Scattering methods leads to both more precise numerical results as well as new analytical results regarding the dual structures of the modules involved. I will also discuss in which sense the Koo-Saleur generators converge to Virasoro generators, and in particular the comparison between the commutator of limits and the limit of the commutator, which were found to agree only up to the central term.

The seminar is online only.
Internet link to be collected from the Organizer: Vincent Pasquier (vincent.pasquier@ipht.fr)