ID de Contribution: **58** Type: **Non spécifié**

Microscopic origin of the c = 1 universality class

I will explain how, starting from certain quite general hypothesis on the finite-volume form factors of local operators, one can derive
the emergence of a $c = 1$ free boson conformal field theory as an effective theory governing the large-distance regime of multi-point correlation functions.
The approach works for a large class of one-dimensional massless
quantum Hamiltonians. I will argue that, in the large-distance regime, the local operators of the model can be represented by well-suited vertex operators associated to the free
boson model. The setting provides thus an effective field theoretic description of the large distance behaviour of correlation functions in 1D quantum critical models.
The fundamental part of this work is that such a description is obtained starting from the first principles, directly at the microscopic level and that the mapping is constructive.

This is a joint work with J.-M. Maillet (ENS-Lyon, Lyon, France).

Auteur principal: KOZLOWSKI, Karol (Laboratoire de Physique, CNRS et École normale supérieure de Lyon)

Orateur: KOZLOWSKI, Karol (Laboratoire de Physique, CNRS et École normale supérieure de Lyon)