



ID de Contribution: 105

Type: **Lecture / lecture series**

RG Flows in Coupled Replica CFTs

vendredi 21 mai 2021 10:00 (1 heure)

Consider M copies of the q -state Potts models and the $O(n)$ models coupled through the bond-bond interaction. Non-trivial IR fixed points exist both in the disordered model (the replica limit $M \rightarrow 0$) and in the unitary model (such as $q=3$ with $M=3, 4, 5, \dots$).

Conformal perturbation theory yields the critical exponents in the expansions in $(q-2)$ or $(1-n)$ around the M -coupled Ising CFTs in 2d, where the coupling is marginal. In addition, the RG flow generated by the Zamolodchikov C -function extracted from the transfer matrix can capture non-perturbative multicritical fixed points at $M=0$. The S -matrix and Monte Carlo method may also be used to explore the theory space. We also discuss some basic known results for $M>2$.

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