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Strings, integrability and beyond

Mercredi 22 Fevrier 2017, 11 :00 IPHT, Room 35 Domaines : hep-th

Titre : Integrable line defects and entanglement entropy

Orateur : Yunfeng Jiang (ETH Zurich)

Résumé : In this talk, I will discuss entanglement entropy of integrable field theories in 1+1 dimensions in the presence of line defects which preserves integrability. For interacting field theories, integrable defects are topological while for free theories the defects can be non-topological. Using the replica trick and the form factor bootstrap method of integrable field theories, I will show that topological defects do not modify the UV behavior of the bulk entanglement entropy but lead to different corrections in the IR limit. On the contrary, non-topological defects modify both the UV and IR behavior of the bulk entanglement entropy.