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Séminaire de physique mathématique

Lundi 11 Juillet 2022, 11 :00
IPHT, Salle Claude Itzykson, Bât. 774
Domaines : math-ph

Titre : *Surface excitations of 3d Topological Insulators : conformal invariance, self-duality and bosonization*

Orateur : **Andrea Cappelli (INFN and Department of Physics, Florence, Italy)**

Résumé : *Massless fermions and anyons on the surface of (3 1)-dimensional topological insulators can be described at the semiclassical level by a nonlocal Abelian gauge theory involving two gauge fields. The theory is nontrivial owing to its solitonic excitations with electric and magnetic charges. We compute the partition function and the solitonic spectrum, thus showing conformal invariance and electric-magnetic self-duality. This theory also provides a framework for semiclassical bosonization of (2 1)d fermions.*
[The talk will also be streamed online, please ask the organizers for the link.]