Seminario de QI

Oliver Buerschaper
MPQ

"Topological tensor Networks from Hopf algebras"

Abstract:

We present a new hierarchy of quantum many-body states all of which feature different topological order. The states at the top of the hierarchy are identified as ground states of generalized quantum double models. We describe the states in terms of tensor networks which are based on certain finite Hopf algebras and exhibit the mechanism responsible for their non-zero topological entanglement entropy. Further we show that some of these states have a dual partner and can thus be used to probe the genus of the surface where they are embedded in.

Organizado por el Grupo "Matemáticas e Información Cuántica" de la UCM en colaboración con el IMI.

24 de febrero de 2010, a las15:00 horas
Seminario 222
Facultad de Ciencias Matemáticas, UCM.