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Seed Seminar of Mathematics and Physics

Mercredi 4 Décembre 2024, 12 :00
IHES, Amphithéâtre Léon Motchane
Domaines : math-ph

Titre : *Kramers-Wannier Duality in Non-abelian Ising Models from SymTFT*

Orateur : **Nafiz Ishtiaque (IHES)**

Résumé : *I will present a concrete construction of 2d Ising partition functions on lattice, with non-abelian (more generally non-invertible) global symmetry. The construction realizes the Ising model as the boundary theory of a 3d symmetry topological field theory (SymTFT) with specific boundary conditions. Suitable choices of boundary conditions correspond to going to different topological sectors of the global symmetry or gauging arbitrary non-anomalous subsymmetry. Electric-magnetic type duality of the SymTFT results in dual descriptions of the Ising model that generalizes the Kramers-Wannier duality of Z/2Z symmetric Ising models.*