

Meeting: 1001, Evanston, Illinois, SS 13A, Special Session on Algebraic Topology: Interactions with Representation Theory and Algebraic Geometry

1001-55-367 **Po Hu*** (po@math.wayne.edu), Department of Mathematics, Wayne State University, Detroit, MI 48202. *On conformal field theories and dessins d'enfants*. Preliminary report.

I will talk about connections between conformal field theories and the theory of dessins d'enfants, which is a program begun by Grothendieck toward understanding the absolute Galois group of \mathbb{Q} , by considering its actions on combinatorial and topological objects. In particular, the Grothendieck-Teichmuller group, defined by Drinfeld, contains the absolute Galois group of \mathbb{Q} and acts on a universal braided tensor category. Using our formalism of stacks of lax commutative monoids with cancellation, I will discuss the action of a subgroup of the Grothendieck-Teichmuller group on the topological moduli stack of worldsheets, as well as on modular functors. (Received August 31, 2004)