Siu-Hung Ng* (rng@iastate.edu), Mathematics Department, Iowa State University, Ames, IA 50011. *Congruence property and Galois symmetry of modular categories.

The natural representation of SL(2,\(\mathbb{Z}\)) associated to a RCFT has been conjectured, by Eholzer, to be \(t\)-rational and have a congruence kernel. It is further conjectured by Coste and Gannon a Galois symmetry of this representation. Some of these conjectures have been proved mathematically in the context of modular categories via the machinery called generalized Frobenius-Schur indicators. In this talk, I will report recent progress of these conjectures for modular categories. (Received September 20, 2011)