1155-22-276 **Jiuzu Hong** (jiuzu@email.unc.edu), Department of Mathematics, 329 Phillips Hall, Chapel Hill, NC 27599. *Twisted conformal blocks and theta functions.*

The theory of conformal blocks is important in 2d conformal field theory. It is defined via Wess-Witten-Zumino, more precisely in terms of Kac-Moody theory. It is related to the geometry of moduli space of algebraic curves. Moreover, conformal blocks can be identified with the theta functions on the moduli stack of principle G-bundles.

I will talk about a twisted theory of conformal blocks attached to Galois covers of algebraic curves, where twisted Kac-Moody algebra will play key roles. I will also talk about the identification between twisted conformal blocks and the theta functions on the moduli stack of torsors over parahoric Bruhat-Tits group schemes over curves. This talk is based on the joint work with Shrawan Kumar. (Received January 21, 2020)