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Jiuzu Hong* (jiuzu@email.unc.edu), Department of Mathematics, UNC Chapel Hill, Phillips Hall CB#3250, Chapel Hill, NC 27599-3250. *Conformal blocks, Verlinde formula and diagram automorphism.*

A diagram automorphism of a simply-laced simple Lie algebra induces operators on conformal blocks associated to a pointed projective curve. I will explain my recent result on the Verlinde formula for the trace of the diagram automorphism on conformal blocks. A non simply-laced simple algebraic group associated to this diagram automorphism appears mysteriously in the formula. This formula and twining formula for Kac-Moody algebras suggests a conjecture on the Verlinde formula for the dimension of conformal blocks for twisted affine Lie algebras on a pointed orbi-curve. (Received August 29, 2016)