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Marcel Bischoff* (bischoff@ohio.edu). *Quantum Operations on Conformal Nets.*

Chiral conformal field theory can be axiomatized using von Neumann algebras by so-called conformal nets. A conformal net has a group of gauge automorphisms which describes its symmetries. But, due to the appearance of braid group statistics in chiral conformal field theory, automorphisms are not enough to describe all (possibly quantum) symmetries of conformal nets. I will propose the idea to generalize automorphisms to quantum operations, i.e. completely positive maps and give some structural results. (Received September 11, 2017)