

1125-81-966

**Marcel Bischoff\*** ([marcel.bischoff@vanderbilt.edu](mailto:marcel.bischoff@vanderbilt.edu)), Vanderbilt University, Department of Mathematics, 1326 Stevenson Center, Nashville, TN 37240. *Generalized fixed points of conformal nets.*

We define actions of finite hypergroups by unital completely positive maps on factors. Such actions arise naturally from finite index subfactors with commutative 2-box space. Using this we can define a proper action on local conformal net of factors and show that the fixed point gives a finite index subnet. Conversely, every finite index subnet arises from a unique proper action of a hypergroup. Using Longo-Rehren subfactors and  $\alpha$ -induction we get a classification of possible actions for completely rational nets. In this case, the hypergroup is necessarily formed by double cosets  $V \backslash F / V$  where  $F$  is a categorifiable fusion ring and  $V$  the fusion ring of representations of the net. (Received September 13, 2016)