

Conformal Field Theory and Operator Algebras

Algebraic quantum field theory is an operator algebraic approach to quantum field theory and its main object is a family ("net") of operator algebras parameterized by spacetime regions, rather than Wightman fields on the spacetime. I will present recent progress on classification of conformal field theories within this approach.

Chiral, full and boundary (super-) conformal field theories are all described in a unified framework and I will present their complete classification for "small" central charges.

I also explain that similar methods are useful for operator algebraic studies of the Monstrous Moonshine conjecture.

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