

Logarithmic vertex operator algebras and 3 manifold invariants (Davide Passaro)

Wednesday, 15 February 2023 15:30 (1h 30m)

Logarithmic vertex operator algebras (Log-VOAs) are vertex operator algebras that admit reducible but indecomposable modules. They formalize the underlying mathematical structure of logarithmic conformal field theories and have been used to study various phenomena including the quantum Hall effect, percolation and limits of the Q-Potts and $O(n)$ lattice models. Recently a connection between characters of certain Log-VOAs and the q-series 3-manifold invariant was discovered. In this talk I will describe a class of Log-VOAs called logarithmic extensions of minimal models and I will demonstrate the relation that the characters of these Log-VOAs have with the q-series 3-manifold invariant.