

A Geometric Description of Vertex Algebras Via Factorization Algebras

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Abstract: Factorization algebras are one "approximation" to physicists' quantum field theories. In this talk, I will introduce factorization algebras and then construct the factorization algebra of quantum observables for a particular classical field theory. I will use this factorization algebra to describe the Heisenberg vertex algebra geometrically. I will also discuss a "super" analog of this construction.