

On the Existence and Uniqueness of Closed Superstring Vertices

Yehao Zhou[#]

(Affiliation: Perimeter Institute for Theoretical Physics)

[#]yzhou3@perimeterinstitute.ca

Abstract: In this talk I will explain a solution to the problem of existence of heterotic-string and type-II-superstring field theory vertices in the product of stacks of bordered surfaces parameterizing the left- and right-moving sectors of these theories. This problem can be solved by proving the existence of a solution of the BV quantum master equation in the moduli stacks of bordered Riemann surfaces with spin structures. This result generalizes the work of Costello on the stacks of ordinary bordered Riemann surfaces, which is related to the existence of bosonic-string field theory vertices. This is a joint work with Seyed Farough Moosavian.

References

[1] S. F. Moosavian, Y. Zhou, On the existence and uniqueness of closed superstring vertices. To appear on arXiv.