
Contribution ID: **28** Type: **not specified**

# Nonperturbative definition of closed string theory via open string field theory

*Wednesday, 8 May 2019 10:00 (55 minutes)*

In open bosonic string field theory with the cubic interaction in terms of the star product a gauge-invariant operator can be defined for each on-shell closed string state. In the theory on N coincident D-branes we claim that the evaluation of correlation functions of the gauge-invariant operators in the 1/N expansion can be interpreted as a closed string perturbation theory in a low-energy limit. Therefore, open string field theory can provide a nonperturbative definition of closed string theory if it is a consistent quantum theory for finite N, which motivates us to explore the generalization to open superstring field theory.

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**Session Classification:** Talks