

String field theory is a second quantized approach to string theory able to describe off-shell processes like transition between vacua, so-called tachyon condensation, and its dynamics. In this work, we review the necessary tools and ingredients needed to formulate such theory for open bosonic string theory. Namely, we introduce elementary conformal field theory methods and some basics of perturbative string theory. We then recognize the kinetic term of string field action from on-shell condition of the perturbative string and axiomatically introduce an algebraic structure on its Hilbert space to construct interaction terms.

We briefly discuss the connection of classical string field theory solutions with various string field backgrounds and present means of reconstructing the background from a given solution by calculating the boundary state. We show that such backgrounds act like a source of open string states. We conclude by calculation of such boundary state for a solution representing light-like tachyon rolling.