

String field theory takes string perturbation theory off-shell and since the different vacua of string theory are described by conformal field theories, it is tempting to use string field theory to describe conformal perturbation theory. We use open string field theory to reproduce the known leading order results of boundary conformal perturbation theory and we also perform the next-to-leading order calculation of the boundary degeneracy  $g$  for a generic theory. This is achieved by finding perturbative solutions to the classical equations of motion of open string field theory corresponding to weakly relevant deformations. The observables of conformal perturbation theory are then given by calculating the on-shell action or by invoking the Kudrna-Maccaferri-Schnabl correspondence. We also lay the groundwork for the investigation of the shift in the boundary spectrum. This work is largely based on the collaboration with Martin Schnabl [1].