## Towards Hamiltonian String Field Theory, and Dirichlet Walls

Thursday 19 December 2024 09:45 (45 minutes)

I will present preliminary work towards formulating string field theory in a Hamiltonian (equal time slice) formalism. This problem is closely related (via a Wick rotation) to the problem of finding consistent End-Of-The-World boundary conditions for string scattering, in which the metric satisfies Dirichlet boundary conditions (rather than Neumann). In defining the transition amplitudes, two fundamental problems arise: (i) string worldsheets have tadpoles which transgress across the boundary infinitely often, and (ii) when a string does cross the boundary, it can cross multiple times. However, I believe that both of these problems can be overcome (at least at tree level) by clever resummation tricks.

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