

There are different kind of zero emerges in the supertachyon case.

Because under certain C_{ij} setting the pfaffian becomes zero.

Taking the $A^{6,3,5}$ as example to discuss some zero sets and these zero's implication.

When we set $S_{2,4}, S_{2,6}, S_{4,6} = 0$, we can see that the $\text{pt}(A^{6,3,5}) = 0$

So in this kinematic condition, the 6-point supertachyon amplitude vanishes. This set of zero imply us that the 3 point SYM

amplitude will vanishes, too. When we use the scaffolding method,

then we can see $S_{2,4} = 0 \Leftrightarrow \varepsilon_1 \cdot \varepsilon_2 = 0$

$S_{2,6} = 0 \Leftrightarrow \varepsilon_1 \cdot \varepsilon_3 = 0$

$S_{4,6} = 0 \Leftrightarrow \varepsilon_2 \cdot \varepsilon_3 = 0$

which tells us 3 point gluon's amplitude in superstring vanishes when

$\varepsilon_1 \cdot \varepsilon_2 = \varepsilon_1 \cdot \varepsilon_3 = \varepsilon_2 \cdot \varepsilon_3 = 0$, but 3 point bosonic gluon's amplitude doesn't vanishes under this setting since the F^3 correction might not vanishes.