In this article, generalization of the previous work [1] by the same authors has been carried out. In [1], a proof of the so-called Cachazo-Svrcek-Witten (CSW) rules in the computation of tree amplitudes of Yang-Mills theory is presented for a specific case. Namely, the proof is given for the case of next-to-MHV (NMHV) amplitudes; notice that the CSW rules give a prescription to express tree amplitudes of arbitrary helicity configurations in terms of maximally helicity violating (MHV) vertices. In this article, the authors generalize the proof to all tree amplitudes of $\mathcal{N} = 4$ super Yang-Mills theory. As a byproduct, the authors also derive generating functions for all tree amplitudes of the theory in an inductive manner.

# References

[1] H. Elvang, D. Z. Freedman and M. Kiermaier, JHEP **0904**, 009 (2009) [arXiv:0808.1720 [hep-th]].