

Classical effective action of dilaton gravity as the double copy of Yang-Mills theory

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I will review the computation of the effective gravitational action in the post-Minkowskian and post-Newtonian approximation by „classically“ integrating out the gravitational field in the path integral. It is then shown how this result for dilaton gravity may be easily obtained through a suitable adaption of the BCJ double copy construction applied to the computation of the effective action for two color charged classical particles in Yang-Mills theory. It is a summary of our recent paper 1807.09859.

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