The Double Self-Dual Gravity with Cosmological Term and Constraints Under the Double Constant Conformal Transformation

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Abstract: The double constraint equations in the self-dual gravitational theory containing the cosmological term are derived in 3+1 gravity. Furthermore, in order to deeply study the Lorentzian and Euclidean reality conditions for this theory, the relations between constraints are discussed by introducing the double constant conformal transformation and the double complex function method.

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