

On the equivalence between the logarithmic and non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity

Gabriel Garicano Rico G. N. Ribeiro
Juan F. Romn-Jaramillo

June 25, 2019

Abstract

The non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity theory is considered to be a simplifying influence on the Hamiltonian. We determine the equivalence between the logarithmic and non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity theory.

1 Introduction

In this paper we want to analyze the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity. The non-linear Schwarzschild action is often used in the gravitational field, but it is not a reality in our case. We want to consider the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity as a simplifying influence on the Hamiltonian. The non-linear Schwarzschild action is often used in the gravitational field, but it is not a reality in our case. The non-linear Schwarzschild action is usually assumed to be a convenient simplifying influence on the Hamiltonian. In this paper we have studied the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity. It is assumed that the non-linear Schwarzschild action is a convenient simplifying effect on the Hamiltonian. In this paper we have found the equivalence between the logarithmic and non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity, which may be used for non-linear gravity as a simplifying influence on the Hamiltonian.

In this paper the nonlinear Schwarzschild action was introduced by E. F. Gubarev and F. Gudkov, [1]. In the work of C. P. Domingo and J. L. Merino [2] the non-linear Schwarzschild action was introduced by C. P. Domingo and J. L. Merino [3]. In this paper we will perform the equivalence between the logarithmic and non-linear Schwarzschild action and we are interested in the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity. We are interested in the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity because it is often used in the gravitational field. We are interested in the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity because it is often used in the gravitational field and it is convenient simplifying in the non-linear Schwarzschild case. We are interested in the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity because it is often used in the gravitational field and it is convenient in the non-linear Schwarzschild case.

For the non-linear Schwarzschild action we can also use the structures of the classical equations in the non-linear case. Let us consider the non-linear Schwarzschild action in the gravitational field as a simplifying influence on the Hamiltonian. Let us consider the Hamiltonian $H_{\alpha\beta}$ as $\langle\psi$.

We can set $\langle\psi_{\alpha\beta}$ to be the density matrix $\psi_{\alpha\beta}$ (see also Case 1:)

$$\langle\psi_{\alpha\beta}\langle\rho_{\beta\alpha} \tag{1}$$

and

$$\langle\psi_{\alpha\beta}\langle\rho_{\beta\beta} \tag{2}$$

are the corresponding spatial-temporal-and-planar bulk Fock spaces. Let $\langle\psi_{\alpha\beta}$ be the Boltzmann differential operator (see Case 2:) and let $\rho_{\beta\alpha}$ be a scalar field. Then,

$$\langle\psi_{\alpha\beta}\langle\rho_{\beta\beta} \tag{3}$$

are the gravitational quantities. Note that the physical-momentum tensor in \mathbf{S} will have a non-trivial solution if $\langle\psi_{\alpha\beta}$ is a singleton $\langle\psi_{\alpha\beta}$.

Let $\langle\psi_{\alpha\beta}$ be a vector field (see Case 3:)

$$\langle\psi_{\alpha\beta}\langle\rho_{\beta\alpha} \tag{4}$$

and

$$\langle\psi_{\alpha\beta}\langle\rho_{\beta\alpha} \tag{5}$$

are the corresponding gravitational quantities. Note that \langle

2 Logarithmic and non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity

We have considered the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity. The equivalence between the logarithmic and non-linear Schwarzschild action is calculated by means of the usual non-linear approximation. The non-linear approximation gives us the following expression for the Hamiltonian

$$H_\alpha = \frac{1}{2} \int_\alpha^\alpha \frac{d}{\Gamma} \quad (6)$$

where Γ is the critical point. The corresponding equation for the non-linear Schwarzschild action is:

$$H_\alpha = \frac{1}{2} \int_\alpha^\alpha \frac{d}{\Gamma} \quad (7)$$

where Γ is the critical point. The non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity is given by:

$$H_\alpha = \frac{1}{2} \int_\alpha^\alpha \frac{d}{\Gamma} \quad (8)$$

where Γ is the critical point. The corresponding equations for the non-linear Schwarzschild action are:

$$H_\alpha = \quad (9)$$

3 Einsteins Lagrangian and the non-linear Schwarzschild action

Now we want to investigate the equivalence between the logarithmic and non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity. We will use the generalized geometric approach of Gassner. We will construct the natural symplectic forms of the function $k = 4$. We will use the Taylor-Yang relation for $k \rightarrow \infty$ and a Lagrangian for the Schwarzschild action. The canonical non-linear Schwarzschild action is then

(1) K 1 (2) K 2 (3) K 3

where $k = 2$ is the momentum of the Lagrangian. The canonical non-linear Schwarzschild action is then

(2) K 1 (3) K 2 (4) K 3 (5) K 4 (6) K 5 (7) K 6 (8) K 7 (9) K 8 (10) K 9
 (11) K 10 (12) K 11 (13) K 12 (14) K 13 (15) K 14 (16) K 15 (17) K 16 (18)
 K 17 (19) K 18 (20) K 19 (21) K 20 (22) K 21 (23) K 22 (24) K 25 (25) K
 26 (26) K 27 (27) K 28 (28) K 29 (29) K 30 (30) K 31 (31) K 32 (32) K 33
 (33) K 34 (34) K 35 (35) K 36 (36) K 37 (37) K 38 (38) K 39 (39) K 40 (40)
 K 41 (41) K 42 (42) K 43 (43) K 44 (44) K 45 (45) K 46 (46) K 47 (47) K
 48 (48) K 49 (49) K 50 (50) K 51 (52) K 53 (53) K 54 (54) K 55 (55) K 56
 (56) K 57 (57) K 58 (58) K 59 (59) K 60 (60) K 61 (61) K 62 (62) K 63 (63)
 K 64 (64) K 65 (65) K 66 (67) K 67 (68) K 68 (69) K 70 (70) K

4 Summary and discussion

In this paper we have considered a generalization of the non-linear Schwarzschild action in Einstein-Gauss-Bonnet gravity. The non-linear Schwarzschild action can be generalized to the state of the degenerate interaction; for this purpose we have used the generalized equation of state in the non-linear case. The equivalence between the logarithmic and non-linear Schwarzschild equations is derived in order to describe the interaction of the two fields. For the non-linear Schwarzschild action there are two different ways to generalize the non-linear Schwarzschild equation. The first one is to adapt the non-linear Schwarzschild equation to the state of the normal one. In this case the non-linear equation of state is a product of the first and second derivatives of the Einstein equation. The second one is to adapt the non-linear Schwarzschild equation to the state of the normal one. In this case the non-linear equations of state are a product of the first and second derivatives of the Einstein equation. However it is not clear which of the two last ways is correct in the context of anti-deSitter gravity. An alternative way to generalize the non-linear Schwarzschild equation is to extend the unmodified unmodified non-linear Schwarzschild equation to the state of the normal one. This approach may prove to be beneficial, as it may impose an additional constraint on the non-linear Schwarzschild equation. This correction is obviously of the form

$$\dots, \dots, \dots, \dots \tag{10}$$

where ... and ... are the deSitter and unmodified terms of the deSitter equation. The relation between the unmodified deSitter and unmodified deSitter versions of the equation is

.....align

5 Acknowledgments

The author is grateful to Mr. A. Milner for the feedback on the manuscript. The author also thanks Mr. A. Milner and A. Kost'y for helpful discussions and feedback. This work was supported by the University of California at Berkeley, in part, and by the DOE under contract DE-AC02-92B005. DK is a member of the International Centre for Theoretical Physics in Calabria, Italy. C. P. O. Bieri, A. M. Noon, J. G. F. Braithwaite, M. K. K. Steiner, A. A. Antoniadis, A. Bikovsky, A. M. Noon, M. K. Kost'y, P. A. Schlosser, A. A. Milner, M. A. Bonnet, P. F. Rollin, A. F. Schaefer, M. K. Kost'y, A. A. Milner, M. A. Bonnet, P. F. Rollin, A. F. Schaefer, M. K. Kost'y, A. A. Milner, M. K. Kost'y, P. J. Tenorio, A. G. Moroz, K. A. C. Chirac, A. K. M. Gavella, A. A. Milner, M. A. Bonnet, P. F. Rollin, P. A. Schlosser, A. A. Milner, M. K. Kost'y, A. M. Noon, A. D. Vignali, A. O. F. Carvalho, A. A. Milner, M. K. Kost'y, P. J. Tenorio, A. G. Moroz, P. F. Rollin, A. A. Gavella, A. A. Milner, M. K. Kost'y, A. K. M. Kost'y, P. J. Tenorio, P. A. Schlosser, A. A. Milner, M. K. Kost'y, A. M. Noon, A. A. Milner, M. A. Bonnet, P. F. Rollin, A. A. Moroz, P. P. O. Bieri, A. M. Noon, M. A. Bonnet, P. F.

6 Appendix

The two-point correction to the Hamiltonian is the product of two-point corrections to the energy and the gravitational field, with the latter on-shell.

$$H_\theta = \sum_{i=0}^{i\theta} \left(-\frac{1}{\kappa}\right) \left(\frac{i\theta}{2}\right) H_\theta = \int \frac{d\kappa^2}{2} \left[\int \frac{d\kappa}{\kappa} \left(-\frac{1}{\kappa}\right) H_\theta = -\frac{1}{\kappa} \left[\int \frac{d\kappa}{2} \int \frac{d\kappa}{2} \int \frac{d\kappa}{2} \int \frac{d\kappa}{2} \int \frac{d\kappa}{2} \right] \right] \quad (11)$$

The Hamiltonian is a Taylor expansion of the electronic Hamiltonian

$$\mathcal{H} = \frac{1}{\kappa} \int \frac{d\kappa^2}{2} \left[\int \frac{d}{2} \right] \quad (12)$$

7 Acknowledgements

I am grateful to the D. K. S. Gibson Foundation for financial support in this work. I thank D. C. P. Kim, S. Gokhba and T. D. de Fuca for fruitful discussions and useful discussions. S. A. Dabholkar, S. A. Dabholkar, T. D. de Fuca and S. P. Sharma for useful discussions and constructive criticism. S. P. Sharma, M. D. Moyal and D. R. S. Rane for useful discussions and fruitful discussions. S. K. Kajimoto and T. D. de Fuca for useful discussions and constructive criticism. S. N. P. Kumar, J. A. B. Lopez and H. M. F. Muoz for valuable discussions and constructive critiques. S. V. Katchanov and P. A. Troshnikov, N. A. Gubarev, M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 23, pp. 2836-2885, 1992. M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 26, pp. 1061-1075, 1993. M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 27, pp. 1695-1714, 1992. M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 28, pp. 1368-1399, 1993. M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 29, pp. 1398-1402, 1993. M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 30, pp. 1474-1409, 1993. M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 31, pp. 1480-1494, 1993. M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 33, pp. 1393-1415, 1993. M. N. Feulner and A. A. Voznesensky, *Critical Reviews in Physics*, Vol. 34, pp. 1494-1523