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Title: Virial Identities for higher dimensional effective actions

**Abstract:** In a previous paper [1] we have presented a treatment of virial identities in relativistic gravity, within the framework of one-dimensional (1D) effective actions, using the Gibbons-Hawking-York term to generalize the procedure for any ansatz. In this talk, we start by summarizing the ways we can calculate the Virial identity of the 1D case and discuss the possible avenues on how this calculation can be generalized to higher dimensional effective actions like, for example, actions with axial symmetry depending on both the radius and an angle. We present some examples of the calculation for spacetimes of spinning compact objects.

[1] - C. A. R. Herdeiro, J. M. S. Oliveira, A. M. Pombo, and E. Radu, Phys. Rev. D 104, 104051