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Classical and quantum cosmology of Born-Infeld type models

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We discuss the classical and quantum cosmology of a universe filled with a tachyon condensate and other Born-Infeld type fields. We analyse, in particular, the cases with a constant potential and with an inverse square potential. We apply the Wheeler-DeWitt equation of canonical quantum gravity to these models and show how it can be appropriately reformulated as a difference equation.

Summary

http://journals.aps.org/prd/abstract/10.1103/PhysRevD.93.083519

http://arxiv.org/abs/1602.01319

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