



Corrigendum

Corrigendum to “Axion monodromy inflation with warped KK-modes”
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ARTICLE INFO

Article history:

Received 2 February 2017

Accepted 13 February 2017

Available online 21 February 2017

Editor: A. Ringwald

The inflaton back-reaction was underestimated in Section 5.2 of [1]: In equation (34), the string-frame length-scale $R_s^2 = \tilde{M} g_s (l_s/2\pi)^2$ of the KS-solution was used instead of the Einstein frame length-scale $R_E^2 = \tilde{M} g_s^{1/2} (l_s/2\pi)^2$. Therefore, the r.h. side of equation (34) should contain a factor $g_s^{-1/2}$ instead of g_s^{-2} . The analogous correction of equation (35) results in a factor of $g_s^{-1/2}$ also in the inflaton energy density. Consequently, there should be no factor of g_s in equation (36) which means that the inflaton back-reaction starts to deform the geometry strongly once the field excursion approaches the Planck-scale.

Nevertheless, the originally sub-Planckian axion can go through many periods with full computational control. Also the extreme lightness of this axionic mode, the mass of which is exponentially below the mass scale of local modes in the throat, remains unaffected.

However, to decide whether our geometry is viable as a model of inflation, a numerical study of the back-reaction is required. While the relevant differential equations are given in the updated version [2], the actual numerical analysis is left to future work.

References

- [1] A. Hebecker, J. Moritz, A. Westphal, L.T. Witkowski, Phys. Lett. B 754 (2016) 328, <http://dx.doi.org/10.1016/j.physletb.2016.01.030>.
- [2] A. Hebecker, J. Moritz, A. Westphal, L.T. Witkowski, arXiv:1512.04463v3 [hep-th].

DOI of original article: <http://dx.doi.org/10.1016/j.physletb.2016.01.030>.

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