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Non-decoupling of heavy scalars in cosmology

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Cover Page



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Non-decoupling of heavy scalars in cosmology

PROEFSCHRIFT

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de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus prof. mr P. F. van der Heijden,
volgens besluit van het College voor Promoties
te verdedigen op vrijdag 8 juni 2012
klokke 12:00

door

Sjoerd Reimer Hardeman

geboren te Hengelo (Overijssel), Nederland in 1982

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Promotor: prof. dr. A. Achúcarro
Co-Promotor: dr. K. E. Schalm
Overige leden: prof. dr. J. W. van Holten
dr. D. Roest
prof. dr. J. M. van Ruitenbeek
dr. B. J. W. van Tent

The background image is the Hubble ultra deep field, an image of an estimated 10,000 galaxies in the constellation Fornax. These galaxies were formed from the density perturbations that were created during inflation and are best studied from the cosmic microwave background radiation. The image of this radiation is used as a background for the letters on the cover. Finally, a curved inflaton trajectory is depicted, which will make features in the power spectrum that might be possible to study using late time cosmology.

'Lieve hart mijn boek is af, mijn boek is af!' - Multatuli

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