



General Relativity and Quantum Cosmology

Inflation and the cosmological constant

F. R. Klinkhamer

(Submitted on 20 Jul 2011 (v1), last revised 10 Jan 2012 (this version, v6))

A particular compensation-type solution of the main cosmological constant problem has been proposed recently, with two massless vector fields dynamically canceling an arbitrary cosmological constant Λ . The naive expectation is that such a compensation mechanism does not allow for the existence of an inflationary phase in the very early Universe. However, it is shown that certain initial boundary conditions on the vector fields can in fact give rise to an inflationary phase.

Comments: 8 pages; v6: published version

Subjects: **General Relativity and Quantum Cosmology (gr-qc)**;
Cosmology and Extragalactic Astrophysics (astro-ph.CO); High Energy Physics - Theory (hep-th)

Journal reference: Phys. Rev. D 85, 023509 (2012)

Report number: KA-TP-19-2011

Cite as: [arXiv:1107.4063](https://arxiv.org/abs/1107.4063) [gr-qc]

(or [arXiv:1107.4063v6](https://arxiv.org/abs/1107.4063v6) [gr-qc] for this version)

Submission history

From: Frans Klinkhamer [\[view email\]](#)

[\[v1\]](#) Wed, 20 Jul 2011 18:51:40 GMT (339kb)

[\[v2\]](#) Mon, 25 Jul 2011 19:26:07 GMT (344kb)

[\[v3\]](#) Tue, 9 Aug 2011 15:12:13 GMT (340kb)

[\[v4\]](#) Thu, 6 Oct 2011 18:01:16 GMT (341kb)

[\[v5\]](#) Wed, 7 Dec 2011 15:30:29 GMT (341kb)

[\[v6\]](#) Tue, 10 Jan 2012 13:49:39 GMT (341kb)

[Which authors of this paper are endorsers?](#)

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

gr-qc

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1107](#)

Change to browse by:

[astro-ph](#)

[astro-ph.CO](#)

[hep-th](#)

References & Citations

- [INSPIRE HEP](#)
([refers to](#) | [cited by](#))
- [NASA ADS](#)

Bookmark [\(what is this?\)](#)

