General Relativity and Quantum Cosmology

Wormholes respecting energy conditions and solitonic shells in DGP gravity

Martín G. Richarte

(Submitted on 22 Jan 2010 (v1), last revised 14 Mar 2010 (this version, v2))

We build spherically symmetric wormholes within the DGP theory. We calculate the energy localized on the shell, and we find that for certain values of the parameters wormholes could be supported by matter not violating the energy conditions. We also show that it could exist solitonic shells charaterized by zero pressure and zero energy; thereafter we make some observations regarding their dynamic on the phase plane.

Comments: 7 pages, 5 figures. Minor change. Conclusions do not change at all.

One reference added.

Subjects: General Relativity and Quantum Cosmology (gr-qc); High Energy

Physics - Theory (hep-th)

Cite as: arXiv:1001.4034v2 [gr-qc]

Submission history

From: Martin Richarte MR [view email]
[v1] Fri, 22 Jan 2010 16:03:28 GMT (741kb)
[v2] Sun, 14 Mar 2010 21:48:16 GMT (763kb)

Which authors of this paper are endorsers?

Download:

- PostScript
- PDF
- Other formats

Current browse context:

gr-qc

< prev | next >
new | recent | 1001

Change to browse by:

hep-th

References & Citations

- SLAC-SPIRES HEP (refers to | cited by)
- CiteBase

Bookmark(what is this?)

CiteULike logo

Connotea logo

■ BibSonomy logo

▼ Mendeley logo

▼ Facebook logo

del.icio.us logo

💌 Digg logo 📗 💌 Reddit logo

Link back to: arXiv, form interface, contact.