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Van Den Broeck's Paper On 'Warp' Drive

From: Stig Agermose <stig.agermose@get2net.dk>
Date: Sat, 12 Jun 1999 03:09:51 +0200 (MET DST)
Fwd Date: Sun, 13 Jun 1999 12:14:37 -0400
Subject: Van Den Broeck's Paper On 'Warp' Drive

Van Den Broeck's paper on his 'warp' drive is posted on Los Alamos National Laboratories' web site. Go to

<http://xxx.lanl.gov/abs/gr-qc/9905084>

for the various formats. Links are preceded by an asterisk.

You'll need Adobe's Acrobat Reader 3.01 or better for the version that I have attached to this email.

Stig

General Relativity and Quantum Cosmology, abstract
gr-qc/9905084

From: Chris Van Den Broeck *chris.vandenbroeck@fys.kuleuven.ac.be>
Date (*v1): Fri, 21 May 1999 12:50:59 GMT (8kb)
Date (revised v2): Tue, 1 Jun 1999 14:25:26 GMT (9kb)

A 'warp drive' with reasonable total energy requirements

Authors: *Chris Van Den Broeck

Comments: 9 pages, 1 figure; minor modifications; typos corrected

Report-no: KUL-TF-99/18

I show how a minor modification of the Alcubierre geometry can dramatically improve the total energy requirements for a 'warp bubble' that can be used to transport macroscopic objects. A spacetime is presented for which the total negative mass needed is only in the order of grams, accompanied by a negligible amount of positive energy. This constitutes a reduction of the absolute value of the energy by 65 orders of magnitude. The new geometry satisfies the quantum inequality concerning WEC violations and exhibits the same advantages as the original Alcubierre spacetime.

Paper: *Source (9kb), *PostScript, or *Other formats

(*N.B.: delivery types and potential problems)

refers *to , cited *by

Links to: *xxx, *gr-qc, /*find, /*abs (*-/*+), /*9905, ?

*<http://www-admin@xxx.lanl.gov>

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