

NewScientist.com is turning 10!

NewScientist.com

- Free E-Zine
- Subscribe to Magazine
- Customer Service

4 FREE ISS

12 October 2005

[HOME](#) | [NEWS](#) | [EXPLORE BY SUBJECT](#) | [LAST WORD](#) | [SUBSCRIBE](#) | [SEARCH](#) | [ARCHIVE](#) |

EXPLORE BY SUBJECT

ALL SUBJECTS

[Health](#)
[Earth](#)
[Fundamentals](#)
[Being Human](#)
[Info-Tech](#)
[Living World](#)
[Mech-Tech](#)
[Opinion](#)
[Sex and Cloning](#)
[Space at:
\[NewScientistSpace.com\]\(#\)](#)

[New Scientist Special Reports](#)

PRINT EDITION

Subscribe



- Current issue
- Archive
- [NS Premium Content](#)

JOBS

JOB OF THE WEEK



[Biologists](#)
[Talecrist](#)

FUNDAMENTALS

How being slim may help our universe to survive

08 October 2005

 From New Scientist Print Edition. [Subscribe](#) and get 4 free issues.

OUR universe probably owes its survival to the fact that it is skinny - but not too skinny.

In the bizarre picture of the cosmos called braneworld, an offshoot of string theory, our three-dimensional universe is merely a membrane floating around in a nine-dimensional space. Many other branes with different numbers of dimensions should also have been created in the big bang.

But Andreas Karch from the University of Washington, Seattle, and Lisa Randall of Harvard University point out that high-dimensional branes are likely to hit each other, and when a brane meets an anti-brane they are both annihilated. Slender 3-branes like ours are far less likely to collide, so they survive.

The dilution that occurs as the 9D space expands in every direction also has a bigger effect on low-dimensional branes than on the high-dimensional kind. So while high-dimension branes suffer mostly from annihilation, low dimension branes suffer mostly from dilution - and mid-dimension branes suffer from both.

The upshot is that if other universes exist, they probably have either three space dimensions like ours, or seven, say Karch and Randall, who have a paper describing their calculations in press at the journal *Physical Review Letters*.

From issue 2520 of New Scientist magazine, 08 October 2005, page 20

[Printable version](#)
[Send to a friend](#)
[RSS feed](#)
[XML](#)

More Fundamentals Stories

[The riddle of time](#) **NS**
[Technicolour](#) **NS**
[Chemical brothers](#)
[Solids that can pass through soli](#)
[How being slim may help our uni](#)

More Stories

[Explore: fundamentals](#)

Ads by Google

Books from What the Bleep

 Buy now! Books and DVDs from t
 What the Bleep.

www.newrenbooks.com

How to Manifest Desires?

 String Theory, What the Bleep? T
 Holographic Mind!

ICreateReality.com


► For exclusive news and expert analysis every week [subscribe](#) to **New Scientist Print Edition**

► For what's in New Scientist magazine this week see [contents](#)

► [Search](#) all stories

► [Contact us](#) about this story

► [Sign up](#) for our free newsletter