

## Re: Peano's space-filling curve

**Source:** <http://sci.tech-archive.net/Archive/sci.math/2004-06/1704.html>

---

**From:** Robin Chapman (*rjc\_at\_ivorynospatower.freemove.co.uk*)

**Date:** 06/09/04

Date: Wed, 09 Jun 2004 18:35:01 +0100

John Morgan wrote:

>

> *OK. so you mentioned bijection. Can you accept that as far  
> back as May 19 I had no clear idea of the significance of  
> this mention. Back then everyone was telling me; nobody was  
> showing me.*

Here are the facts:

- (i) there is a bijection  $f : [0,1] \rightarrow [0,1]^2$ ,
- (ii) there is a continuous surjection  $g : [0,1] \rightarrow [0,1]^2$ ,
- (iii) there is no continuous bijection  $h : [0,1] \rightarrow [0,1]^2$ .

> *John*

Any relation to Piers?

--

Robin Chapman, [www.maths.ex.ac.uk/~rjc/rjc.html](http://www.maths.ex.ac.uk/~rjc/rjc.html)

"Lacan, Jacques, 79, 91-92; mistakes his penis for a square root, 88-9"

Francis Wheen, [\\_How Mumbo-Jumbo Conquered the World\\_](#)