

# Re: Division by Zero in Nature, and Decomposition of Time.

**Source:** <http://sci.tech-archive.net/Archive/sci.math/2005-01/6711.html>

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**From:** Ioannis (*morpheus\_at\_olympus.mons*)

**Date:** 01/23/05

Date: Sun, 23 Jan 2005 21:53:27 +0200

LEFTY wrote:

[snip]

> *I have been trying to understand continuity for years, and wind up with  
> something worse,*

"Understanding" of continuity can only come from "understanding"  
epsilon-delta definitions in Analysis.

> *how to construct a smooth transition from 4d to 3d  
> mathematically. Maybe algebraic topology ?  
> Any ideas on how to do such a thing ? I'm stumped.*

I don't see what the problem is. This is trivial mathematically. Here's  
a "smooth" transition from 4D to 3D:

$f(i,j,k,t)=ai+bj+ck+dt$ ,  $a,b,c>0$ ,  $0\leq d\leq 1$

If you trace  $d$  towards 0 continuously, when  $d$  reaches 0 the fourth  
dimension disappears. When this happens, you have constructed what's  
called a "canonical projection".

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I. N. G. --- <http://users.forthnet.gr/ath/igal/>