

Info

This note, that [was found here](#), as a part of [a collection](#) is written (completely with human hands) by [Rupadarshi Ray](#), was created on December 11, 2024 5:50:03 PM, was last modified on September 7, 2026 1:10:50 PM, and was exported on September 7, 2026 3:09:51 PM.

$C^1([a,b],\mathbb{R})$

To add some to what [u/sleeps_with_crazy](#) said $\mathcal{C}[0,1]$ with a Gaussian measure is called Wiener space - that is, it is where Brownian motion lives. Lots of cool stuff happens if you interpret what he says in this case. ^[1]

- norms
 - $(C^1([a,b],\mathbb{R}), || ||_\infty)$
 - sum sup norm
 - L^p norm
- End
 - [Derivative operator on \$C^1\[a,b\]\$](#)

Current note has 2 direct children and 2 total descendants.

- stem
 - [subobjects of and functions on \$\mathbb{R}^n, S^n, \mathbb{C}^n\$ and its quotients \$\Gamma \backslash \mathbb{R}^n, \Gamma \backslash \mathbb{C}^n\$](#)
 - [Differentiable functions](#)
 - [Space of continuous and continuously differentiable functions on \$\mathbb{R}\$](#)
 - $C^1([a,b],\mathbb{R})$
 - [Derivative operator on \$C^1\[a,b\]\$](#)
 - $(C^1([a,b],\mathbb{R}), || ||_\infty)$

And it has 2 siblings.

- stem
 - [subobjects of and functions on \$\mathbb{R}^n, S^n, \mathbb{C}^n\$ and its quotients \$\Gamma \backslash \mathbb{R}^n, \Gamma \backslash \mathbb{C}^n\$](#)
 - [Differentiable functions](#)
 - [Space of continuous and continuously differentiable functions on \$\mathbb{R}\$](#)
 - $C^1([a,b],\mathbb{R})$
 - $C_c^k((a,b),\mathbb{R})$

1. https://www.reddit.com/r/math/comments/a6bptc/comment/ebtn9bu/?utm_source=share&utm_medium=web3x&utm_name=web3xcss&utm_term=1&utm_content=share_button ↩