File:Damped oscillation function plot.svg

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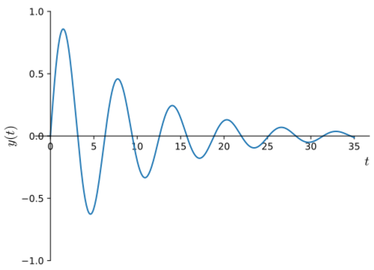

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Original file (SVG file, nominally 576 × 432 pixels, file size: 20 KB)

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File information Structured data

Captions Edit

English Exponentially decaying sine function.

See 1 more language

Summary [edit]

Description	**English:** Exponentially decaying cosine function $y(t) = e^{-0.1t}\sin(t)$ **Español:** Función coseno que decae exponencialmente $y(t) = e^{-0.1t}\sin(t)$
Date	26 February 2022
Source	Own work
Author	Nicoguaro
SVG development	The source code of this SVG is invalid due to an error. This W3C-*invalid* plot was created with Matplotlib. The file size of this SVG plot may be irrationally large because its text has been converted to paths, to inhibit translation.
Source code	Python code

```python
import numpy as np
import matplotlib.pyplot as plt


plt.rcParams["mathtext.fontset"] = "cm"

t = np.linspace(0, 35, 500)
y = np.exp(-0.1*t)*np.sin(t)
plt.plot(t, y)


plt.xlabel("$t$", fontsize=14, loc="right")
plt.ylabel("$y(t)$", fontsize=14)
plt.yticks([-1, -0.5, 0, 0.5, 1])

ax = plt.gca()
ax.spines['right'].set_color('none')
ax.spines['top'].set_color('none')
ax.xaxis.set_ticks_position('bottom')
ax.spines['bottom'].set_position(('data',0))
ax.yaxis.set_ticks_position('left')
ax.spines['left'].set_position(('data',0))
plt.savefig("Damped oscillation function plot.svg")
plt.show()
```

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	Date/Time	Thumbnail	Dimensions	User	Comment
current	16:29, 26 February 2022		576 × 432 (20 KB)	Nicoguaro (talk | contribs)	Uploaded own work with UploadWizard

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The following page uses this file:

- File:Damped oscillation function plot.png

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The following other wikis use this file:

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Categories: Damped oscillations | Vibrations | Functions (mathematics)

Hidden categories: Invalid SVG created with Matplotlib code | Path text SVG | CC-BY-4.0 | Self-published work

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