

# Codebraid with Julia

## Latex

Here is some latex.

$$\frac{d^2u}{dt^2} = c^2 \frac{d^2u}{dx^2}$$

## Plots

```
```.python .cb-nb jupyter_kernel=python session=random}
%matplotlib inline
import matplotlib.pyplot as plt
import numpy as np
x = np.linspace(0, 2*np.pi, 1001)
x_tick_values = np.linspace(0, 2*np.pi, 5)
x_tick_labels = ['0', r'$\pi/2$', r'$\pi$', r'$3\pi/2$', r'$2\pi$']
plt.plot(x, np.cos(x), label=r'$\cos(x)$')
plt.plot(x, np.sin(x), label=r'$\sin(x)$')
plt.xticks(x_tick_values, x_tick_labels)
plt.legend(prop={'size': 12})
plt.grid()
...

1 %matplotlib inline
2 import matplotlib.pyplot as plt
3 import numpy as np
4 x = np.linspace(0, 2*np.pi, 1001)
5 x_tick_values = np.linspace(0, 2*np.pi, 5)
6 x_tick_labels = ['0', r'$\pi/2$', r'$\pi$', r'$3\pi/2$', r'$2\pi$']
7 plt.plot(x, np.cos(x), label=r'$\cos(x)$')
8 plt.plot(x, np.sin(x), label=r'$\sin(x)$')
9 plt.xticks(x_tick_values, x_tick_labels)
10 plt.legend(prop={'size': 12})
11 plt.grid()

-----
ModuleNotFoundError                                Traceback (most recent call last)
```

```

Input In [1], in <cell line: 1>()
----> 1 get_ipython().run_line_magic('matplotlib', 'inline')
      2 import matplotlib.pyplot as plt
      3 import numpy as np

File /media/hayagriva/miniforge3/lib/python3.9/site-packages/IPython/core/interactiveshell.p
  2292     kwargs['local_ns'] = self.get_local_scope(stack_depth)
  2293 with self.builtin_trap:
-> 2294     result = fn(*args, **kwargs)
  2295 return result

File /media/hayagriva/miniforge3/lib/python3.9/site-packages/IPython/core/magics/pylab.py:9
  97     print("Available matplotlib backends: %s" % backends_list)
  98 else:
----> 99     gui, backend = self.shell.enable_matplotlib(args.gui.lower() if isinstance(args
  100     self._show_matplotlib_backend(args.gui, backend)

File /media/hayagriva/miniforge3/lib/python3.9/site-packages/IPython/core/interactiveshell.p
  3423 def enable_matplotlib(self, gui=None):
  3424     """Enable interactive matplotlib and inline figure support.
  3425
  3426     This takes the following steps:
  3427     (...)
  3442         display figures inline.
  3443     """
-> 3444     from matplotlib_inline.backend_inline import configure_inline_support
  3446     from IPython.core import pylabtools as pt
  3447     gui, backend = pt.find_gui_and_backend(gui, self.pylab_gui_select)

File /media/hayagriva/miniforge3/lib/python3.9/site-packages/matplotlib_inline/backend_inlin
  1 """A matplotlib backend for publishing figures via display_data"""
  3 # Copyright (c) IPython Development Team.
  4 # Distributed under the terms of the BSD 3-Clause License.
----> 6 import matplotlib
  7 from matplotlib.backends.backend_agg import ( # noqa
  8     new_figure_manager,
  9     FigureCanvasAgg,
  10     new_figure_manager_given_figure,
  11 )
  12 from matplotlib import colors

ModuleNotFoundError: No module named 'matplotlib'

```