Beampy a tool to make simple presentation

Hugo Chauvet

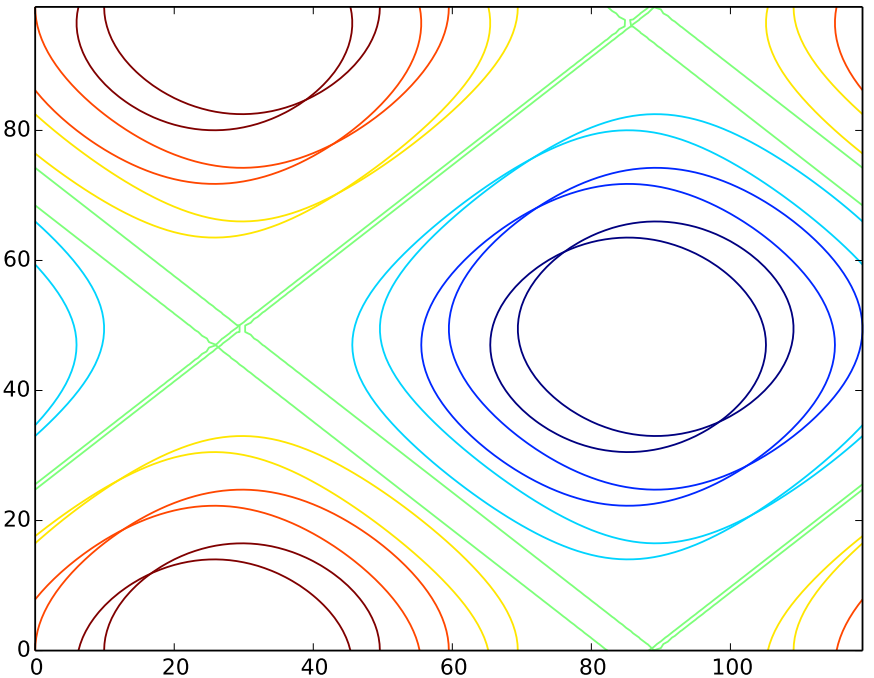
Text

Use LaTeX to render text and equation

$$\sqrt{10}$$

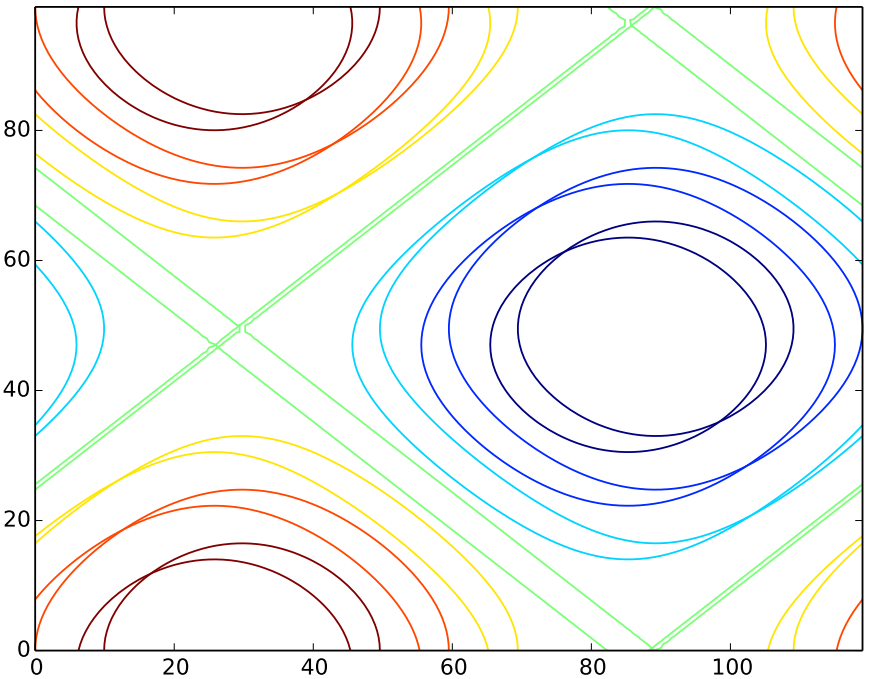
```
with slide():
        title("Text")
        text(r\"""Use LaTeX to render text and equation \\ $$\sqrt{10}$$\""")
```

Figure




```
slide("Figure")
    figure("./svg_anims/test_0.svg", width="500")
```

Svg animation




```
slide('Svg animation')
animatesvg("./svg_anims/", width="500")
```

Video


```
slide('Video')
    video("./test.webm", width="500", height="294")
```

Group and columns

This is a test for a long text in a column style.

$$\sum_{i=0}^{10} x_i$$

```
slide('Group and columns')
    colwidth=350
    with group(width=colwidth,
        height=doc._height-100,
        x="1cm", y="1.8cm",
        background="#000") as g1:

        text("""
        This is a test for
        a long text in a
        column style.

        $$ \sum_{i=0}^{10} x_i $$
        """,
        align="center",
        width=colwidth-20,
        color="#ffffff")
```

Relative positioning

youpi x=1cm, y=0.1

youpi x=1cm, y=+0.5cm

youpi x=1cm, y=+0.5cm

```
slide('Relative positioning')
    text("youpi x=1cm, y=0.1", x="1cm", y=0.1)
    text("youpi x=1cm, y=+0.5cm", x="1cm", y="+0.5cm")
    text("youpi x=1cm, y=+0.5cm", x="1cm", y="+0.5cm")

    text("youpi x=+1cm, y=+0.5cm", x="+1cm", y="+0.5cm")
    text(r"youpi x=-0, \\ y=+0.5cm", x="-0", y="+0.5cm")
    text(r"youpi x=+1.5cm,\\ y=-0", x="+1.5cm", y="-0")
```

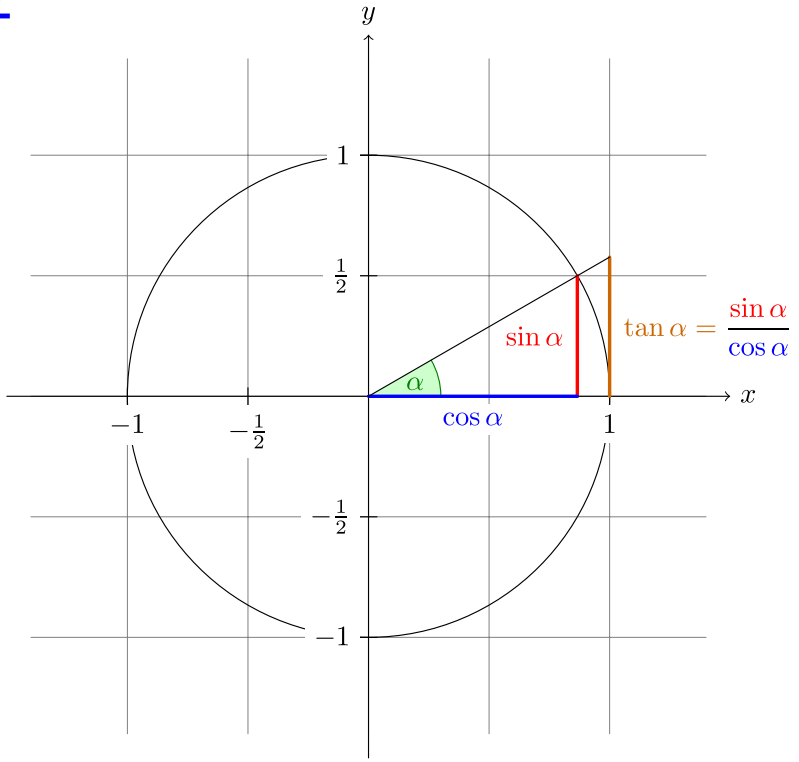
Using element's anchors

left of e0 central element [e0] right of e0

anchors available: top, bottom, center, right, left

```
e0 = text('central element [e0]', y=0.2)
    e1 = text('left of e0', y=e0.top+0,
              x=e0.left-{'shift': 0.1, 'align':'right'})
    e2 = text('right of e0', y=e0.top+0, x=e0.right+0.1)
    e4 = text('anchors available: top, bottom, center, right, left',
               y=e0.bottom+'1cm', x=e0.center+{'shift':0, 'align':'middle'})
```

Tikz



The angle α is $30°$ in the example ($\pi/6$ in radians). The sine of α, which is the height of the red line, is

$$\sin\alpha = 1/2.$$

By the Theorem of Pythagoras we have $\cos^2\alpha + \sin^2\alpha = 1$. Thus the length of the blue line, which is the cosine of α, must be

$$\cos\alpha = \sqrt{1 - 1/4} = \tfrac{1}{2}\sqrt{3}.$$

This shows that $\tan\alpha$, which is the height of the orange line, is

$$\tan\alpha = \frac{\sin\alpha}{\cos\alpha} = 1/\sqrt{3}.$$

http://www.texample.net/tikz/examples/tutorial/

```
slide()
title('Tikz')
p = tikz(r""" ....[TIKZ LINES].... \""")
t = text(r"\href{http://www.texample.net/tikz/examples/tutorial/}
{http://www.texample.net/tikz/examples/tutorial/}",
x="center", y=p.bottom+0.11)
```

Bokeh plot

```
slide()
title('Bokeh plot')
from bokeh.plotting import figure as bokfig
import numpy as np
p = bokfig(height=300, width=600)
x = np.linspace(0, 4*np.pi, 30  )
y = np.sin(x)
p.circle(x, y, legend="sin(x)")
figure(p, y="+5px", x="center")
```