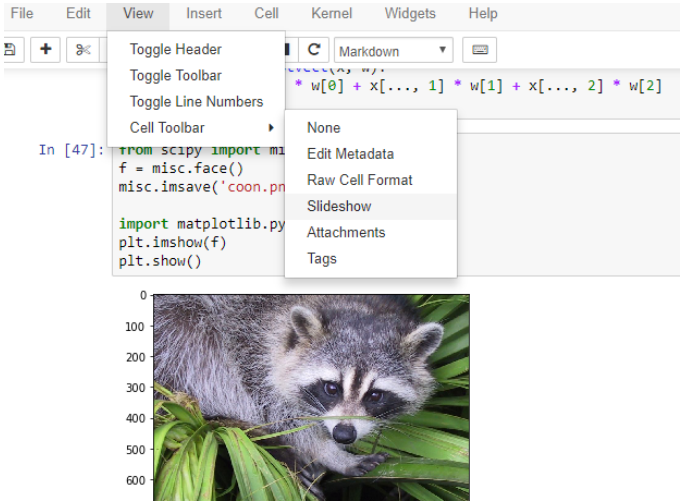
Создание презентаций с помощью Jupyter Notebook

Пономарева Любовь

МГУ имени М. В. Ломоносова, факультет ВМК, кафедра ММП

14 ноября 2017 г.

View — Cell Toolbar — Slideshow



- ✓ Slide
- ✓ Sub-Slides
- ✓ Fragments
- ✓ Notes
- ✓ Skip

```
jupyter nbconvert <note-name>.ipynb
    -to slides -post serve
```

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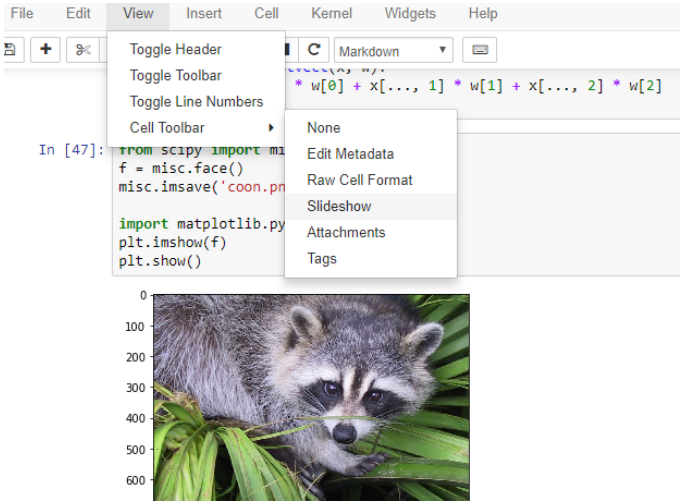

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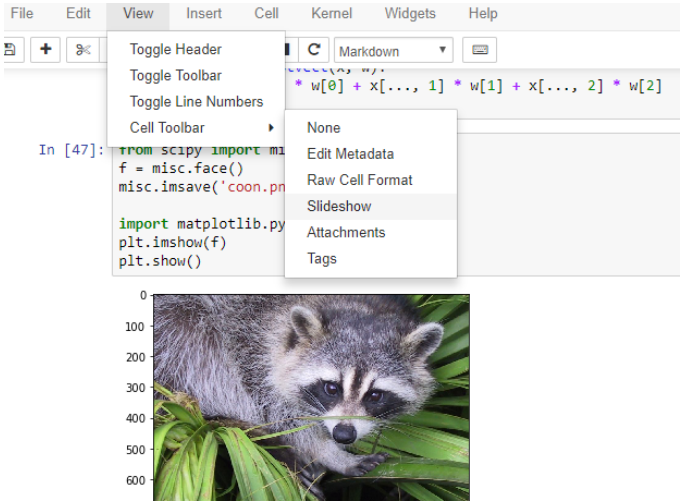

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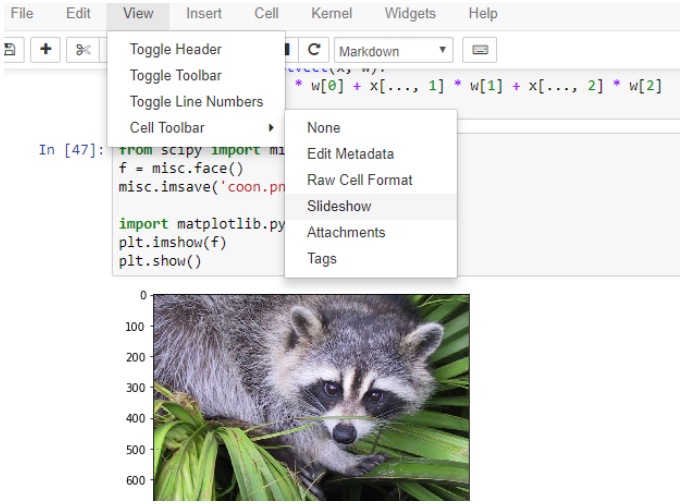

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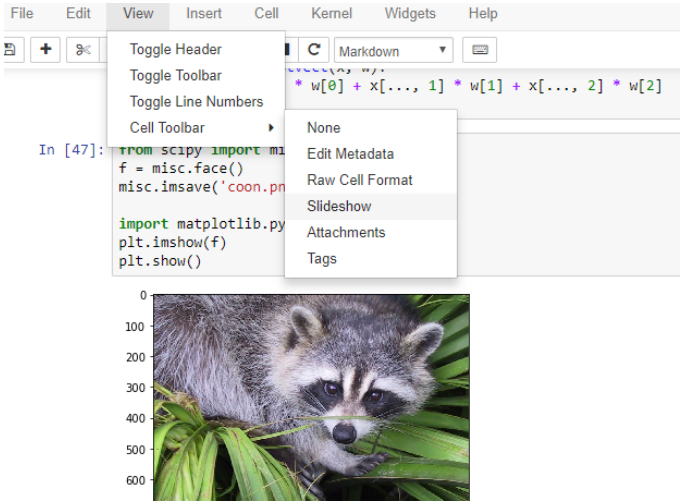

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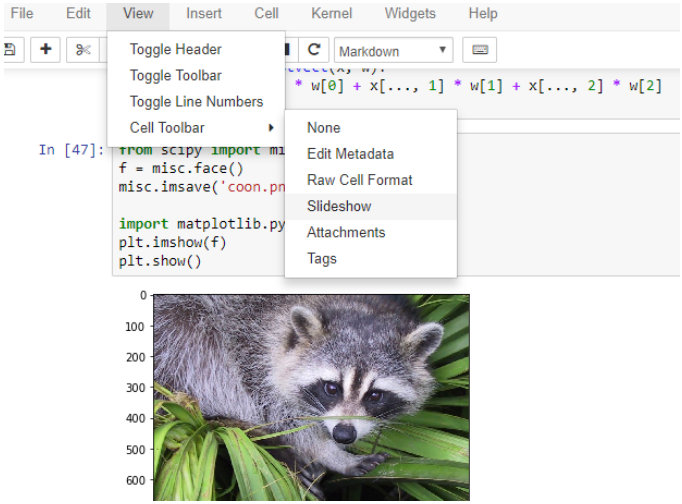

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- ✓ Skip

```
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    -to slides -post serve
```
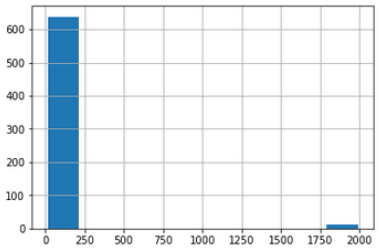

✓ Matplotlib inline

Задача 5

In [208]:
```
data['age'].hist()
```

Out[208]:
```
<matplotlib.axes._subplots.AxesSubplot at 0xe454cada90>
```



- %%python3
- %%ruby
- %%perl
- %%bash
- %%latex

```
def f(x):
    """a docstring"""
    return x**2
if (i=0; i<n; i++) {
  printf("hello %d\n", i);
  x += 4;
}
```

Display protocol

IPython отображает следующие типы объектов:

- ✓ HTML
- ✓ PNG
- ✓ JPEG
- ✓ SVG
- ✓ LaTeX
- ✓ JSON

Image

In [7]:

Slide Type Slide

```
from IPython.display import display
```

In [8]:

Slide Type Slide

```
from IPython.display import display_pretty, display_html, display_jpeg, display_png, display_json, display_latex, display_
```

In [18]:

Slide Type Slide

```
from IPython.display import Image
Image(url='http://python.org/images/python-logo.gif')
```

Out[18]:

In [8]:

```
from IPython.display import SVG
SVG(filename='img/python-logo.svg')
```

Out[8]:

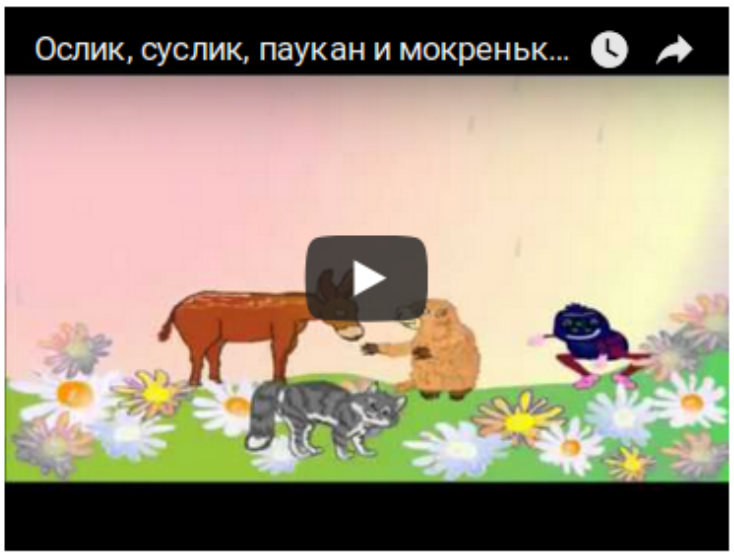
In [32]:
```
Image('https://upload.wikimedia.org/wikipedia/commons/1/1e/Stonehenge.jpg')
```

Out[32]:

Video

In [25]:
```
from IPython.display import YouTubeVideo
YouTubeVideo('fNT7Mq5Ov2E')
```

Out[25]:



In [26]:
```
from IPython.display import HTML
HTML('<iframe src=http://wikipedia.org width=700 height=350></iframe>')
```

Out[26]:

In [27]:
```
from IPython.display import Math
Math(r'F(k) = \int_{-\infty}^{\infty} f(x) e^{2\pi i k} dx')
```

Out[27]:

$$F(k) = \int_{-\infty}^{\infty} f(x) e^{2\pi i k} dx$$

In [28]:
```
from IPython.display import Latex
Latex(r"""\begin{eqnarray}
\nabla \times \vec{\mathbf{B}} -\, \frac1c\, \frac{\partial\vec{\mathbf{E}}}{\
partial t} & = \frac{4\pi}{c}\vec{\mathbf{j}} \\
\nabla \cdot \vec{\mathbf{E}} & = 4 \pi \rho \\
\nabla \times \vec{\mathbf{E}}\, +\, \frac1c\, \frac{\partial\vec{\mathbf{B}}}
{\partial t} & = \vec{\mathbf{0}} \\
\nabla \cdot \vec{\mathbf{B}} & = 0
\end{eqnarray}""")
```

Out[28]:

$$\begin{aligned}
\nabla \times \vec{\mathbf{B}} - \frac{1}{c}\frac{\partial \vec{\mathbf{E}}}{\partial t} &= \frac{4\pi}{c}\vec{\mathbf{j}} \\
\nabla \cdot \vec{\mathbf{E}} &= 4\pi\rho \\
\nabla \times \vec{\mathbf{E}} + \frac{1}{c}\frac{\partial \vec{\mathbf{B}}}{\partial t} &= \vec{\mathbf{0}} \\
\nabla \cdot \vec{\mathbf{B}} &= 0
\end{aligned}$$

In [31]:

```
%%latex
\begin{align}
\nabla \times \vec{\mathbf{B}} -\, \frac1c\, \frac{\partial\vec{\mathbf{E}}}{\
partial t} & = \frac{4\pi}{c}\vec{\mathbf{j}} \\
\nabla \cdot \vec{\mathbf{E}} & = 4 \pi \rho \\
\nabla \times \vec{\mathbf{E}}\, +\, \frac1c\, \frac{\partial\vec{\mathbf{B}}}
{\partial t} & = \vec{\mathbf{0}} \\
\nabla \cdot \vec{\mathbf{B}} & = 0
\end{align}
```

$$\nabla \times \vec{\mathbf{B}} - \frac{1}{c}\frac{\partial \vec{\mathbf{E}}}{\partial t} = \frac{4\pi}{c}\vec{\mathbf{j}}$$

$$\nabla \cdot \vec{\mathbf{E}} = 4\pi\rho$$

$$\nabla \times \vec{\mathbf{E}} + \frac{1}{c}\frac{\partial \vec{\mathbf{B}}}{\partial t} = \vec{\mathbf{0}}$$

$$\nabla \cdot \vec{\mathbf{B}} = 0$$

Links to local files

In [34]:
```
from IPython.display import FileLink, FileLinks
FileLink('task1.ipynb')
```

Out[34]: task1.ipynb

In [36]:
```
FileLinks('/home/loweis/tests')
```

Out[36]:
/home/loweis/tests/
006.dat
005.dat
001.dat
004.ans
006.ans
003.dat
003.ans
005.ans
001.ans
002.ans
002.dat
004.dat

+ Быстрое создание презентаций и красивых аналитических отчетов
+ Позволяет объединять код, изображения, комментарии, формулы и графики
+ Легко задавать окружения для разных языков
– Недостаточно функций форматирования и дизайна