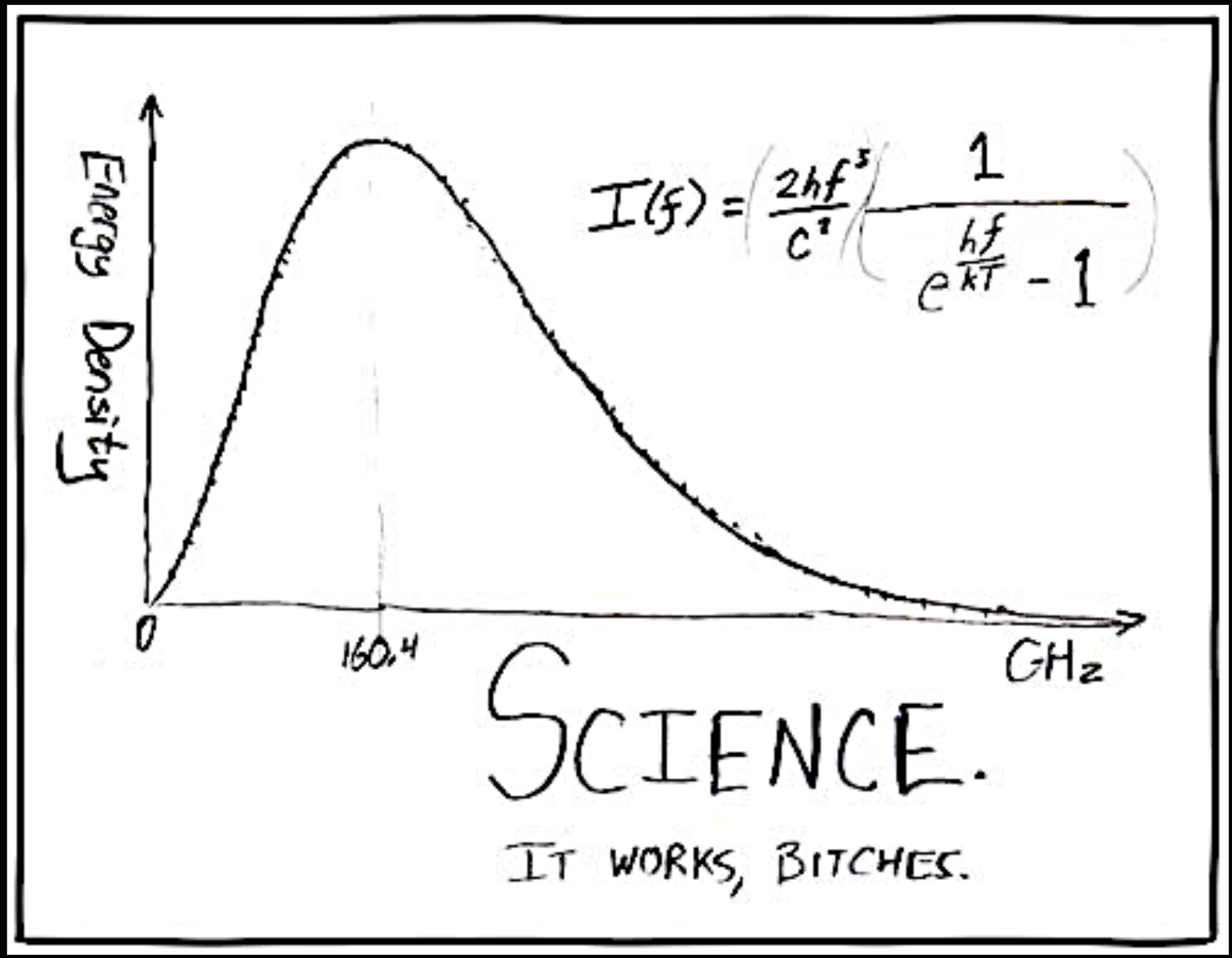
Science



#pyconie

http://xkcd.com/54/

Science

&

#pyconie

Science

&

Python!

#pyconie

Ulrich Dangel

uli@dangel.im

@mr_ud

http://dangel.im

Performance Engineering Lab

awesome!

```
if 0 < x < 10:
    print 'Inside range'
```

```
a = 10
b = 5
```

```
a, b = b, a
```

mini-net

IP[y]: IPython

Interactive Computing

NumPy

NumPy

- Base package
- N - DIM array
- Linear algebra
- Fourier Transform
- RND Numbers

NumPy

SciPy

clustering

interpolate

stats

optimize

spatial

http://www.flickr.com/photos/stuckincustoms/7950929736/

SciPy

NumPy

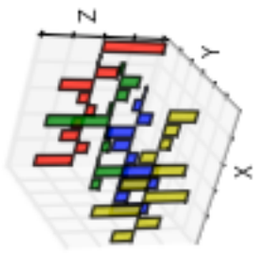
http://orange.biolab.si/

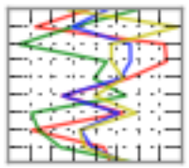

matplotlib

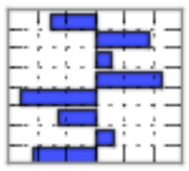
SciPy

matplotlib

NumPy







pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$

SciPy

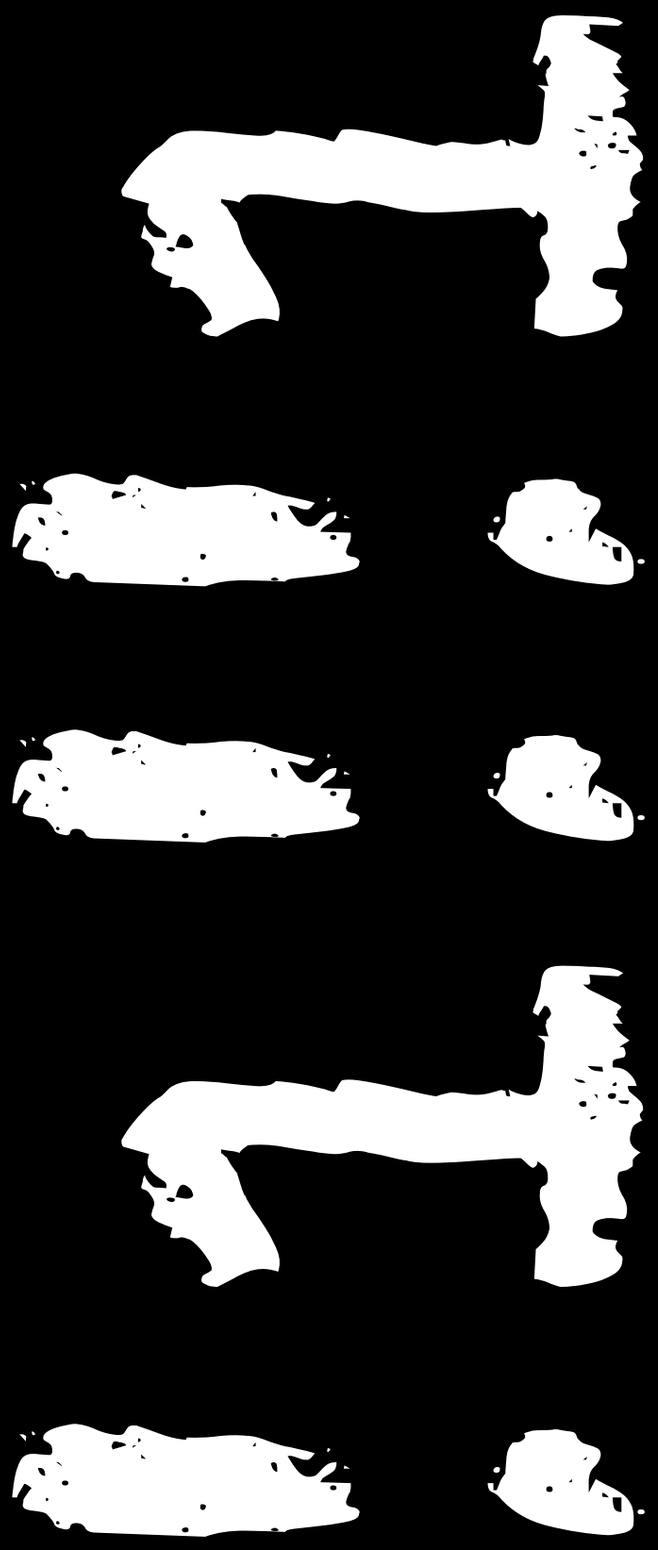
matplotlib

NumPy

nltk

TextBlob

LaTeX



؟

Ulrich Dangel

uli@dangel.im

Updated slides:
http://dangel.im/pyie13/

@mr_ud

http://dangel.im

Links

- Notebook used for presentation
- http://www.numpy.org/ - numpy
- http://www.scipy.org/ - scipy
- http://matplotlib.org/ - plotting
- http://nltk.org/ - natural language processing
- https://github.com/sloria/TextBlob - nlp (simple)
- http://orange.biolab.si/ - ml framework
- http://sympy.org/en/index.html - symbolic computation

Links

- http://pandas.pydata.org/ - timeseries data
- http://ipython.org/ - interactive shell
- http://nbviewer.ipython.org/ - ipython notebook viewer
- http://rpy.sourceforge.net/rpy2.html
- http://www.stat.uni-muenchen.de/~leisch/Sweave/ - R intergration with LaTeX
- http://orgmode.org/worg/org-contrib/babel/
- Discussion about Titanic