SymPy

Sean Vig

March 15, 2013



SymPy modules

- Category theory
- Combinatorics (group theory)
- Differential geometry
- Functions
- Geometric algebra
- Geometry
- Integration
- Logic

- Matrices
- Number Theory
- Physics
- Plotting
- Polynomials
- Solvers
- Statistics
- Tensors

Installing SymPy

```
From source (https://code.google.com/p/sympy/downloads/list)
```

```
$ python setup.py install
```

Python 3

```
$ ./bin/use2to3
```

\$ cd py3k-sympy

\$ python setup.py install

Pip

```
$ pip install sympy
```

Running SymPy

Python Session

>>> from sympy import *

Interactive session

\$./bin/isympy

Interactive IPython

\$ ipython --profile=sympy

Dependencies

None! (other than Python) ≥ 2.5 including 3.2 (3.3?)

But can be integrated with:

- IPython
- gmpy
- NumPy
- SciPy
- pyglet/matplotlib

Live Demo!