Matroid computation in Sage

Stefan van Zwam
Princeton University

Based on joint work with
Rudi Pendavingh, Gordon Royle, you?

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Sage

Sage is

- A computer algebra system similar to Maple, Mathematica

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- Actively maintained
- Well-supported:
  - bug tracking
  - sage-support@googlegroups.com
  - AskSage

Matroids in Sage

Goals:

- Easy interface
- Robust (fast!) implementation of basic functions
- Flexible

Hope: first version submitted to Sage within 2 months.

Matroids in Sage

Needed for this version:

- Inline documentation and tests
- Loading, saving, copying

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Planned for second version:

- Tutorial documentation
- Automorphism group
- Connectivity
- Handling large sets and classes of matroids

Use it now!

(*i*) **Get and install Sage:**

http://www.sagemath.org/

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(*ii*) **From a shell prompt, type**

```
sage -hg clone \
https://bitbucket.org/matroid/sage_matroids
cd sage_matroids
sage setup.py install
```

(*iii*) **Start Sage and the notebook, type at top of worksheet**

```
from sage.matroids.all import *
```

Join us!

- Discuss: http://groups.google.com/group/sage-matroid
- Get and contribute code: https://bitbucket.org/matroid/sage_matroids/
- These slides (soon): http://www.math.princeton.edu/~svanzwam/

Sage and Matroids workshop:
Friday, 1pm - 2:30pm