Courses

SageMathCloud has been already been successfully employed to teach more than 60 different courses across the globe, a sample of which are listed below:

Winter 2014

- Cryptographic Mathematics – Mary Immaculate Coll.
- Algorithmic Number Theory – Universität Oldenburg
- Discrete Structures for CS1 – Grand Valley State Univ.
- Computing for Mathematics – Cardiff University
- Calculus Lab – University of Hawaii, Hilo
- Théorie des nombres – Univ Rennes, France
- Computational and Applied Algebra – Calif. State Univ.
- Computer Algebra – Aalborg University

Summer 2014

- Experimental Gravitational Wave Physics, Caltech
- Numerical Analysis – Univ. West Indies, Barbados

Spring 2014

- Cryptography, Codes, and Information Security – US Naval Academy
- Numerical Analysis of Differential Equations – KAUST
- Math Explorations – PLU
- Modular forms and their arithmetic – U. Wisconsin

Fall 2013

- Calculus – UCLA (over 350 students)
- Kryptographie – Univ. Duisburg-Essen, DE
- Arithmetic Geometry – MIT

"""My 150+ students are now actively using SMC. This time last year I was running around in a panicked state rebooting servers [...] as our local Sage Mathematical Software System server kept crashing. This year it's been completely painless [...]. Great tool."""

– Vincent Knight, Cardiff University

Website: `https://cloud.sagemath.com`

Open Source: `https://github.com/sagemath/cloud/`

Contact: William Stein <wstein@uw.edu>

Credits

SageMathCloud makes available, is built upon, and powered by: GNU/Linux, Node.js, Coffeescript, Python, IPython, Sage, LaTeX, Octave, R, Julia, GCC, Fortran, Lisp, Haskel, Codemirror, Bootstrap, term.js, diff-patch-merge, Markdown, pandoc, rst2html, ImageMagic, rsync, ssh, Nginx, Cassandra, ZFS, Bup, Java, stunnel, tinc, HAproxy, and much, much more.

Financial support

NSF, Google, University of Washington

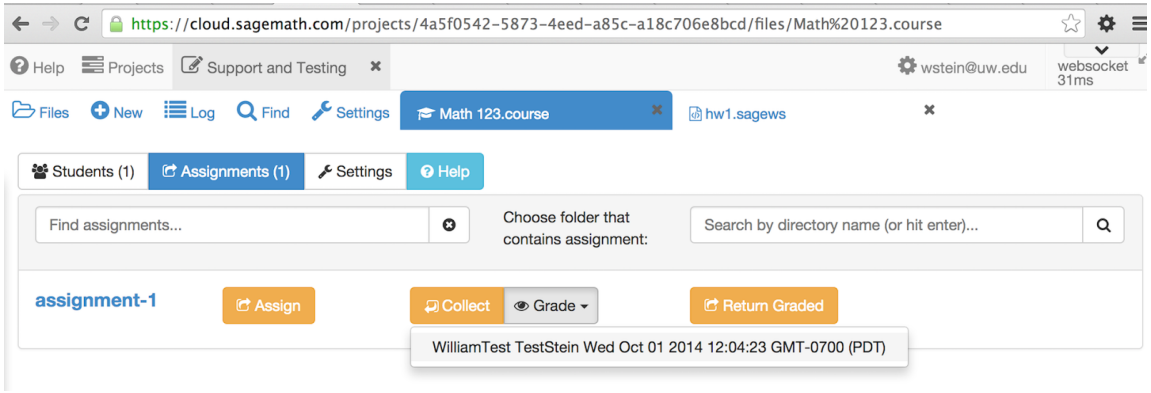
This flyer was created entirely inside SageMathCloud.

(See `http://goo.gl/zFVe8w`)

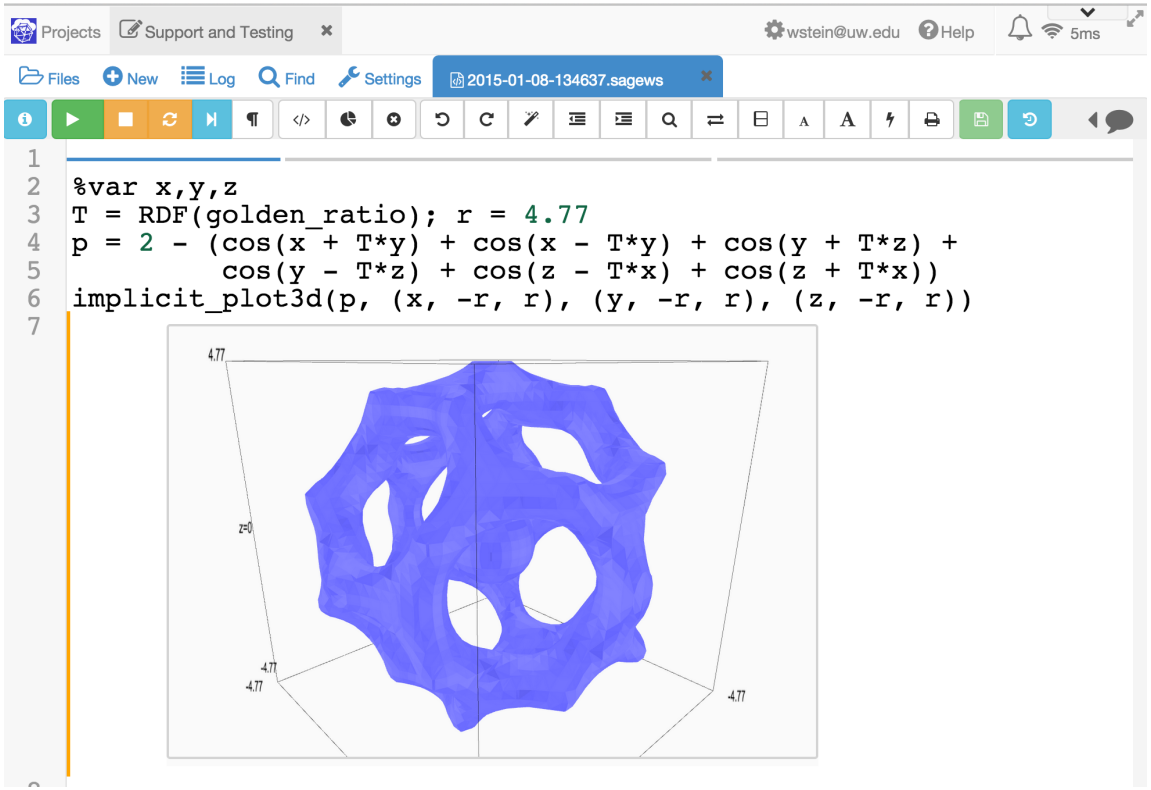
SageMathCloud
Teaching
MAA Project NExT, 2015
`https://cloud.sagemath.com`

SageMathCloud is the ultimate one-stop-shop solution for the modern teaching environment.

- Collaborative online web-service
- Real-time synchronization of worksheets and files
- Course management
- Embedded chat-boxes for each document
- Enhanced Sage installation
- IPython Notebook, R, Fortran, Julia, ...
- 2D and 3D graphics
- LaTeX document editor
- Snapshots with continuous backup of all data



Hand-out, collect, grade and return assignments from a centralized interface.



Plot implicit functions in 3D!

SageMathCloud for Teaching

SageMathCloud includes a comprehensive environment of fully-managed software packages, interactive worksheets for computations and documents, support for 2D and 3D plots, real-time synchronization, course management and chat-boxes.

Snapshots and Backup

Never lose your homework again! SageMathCloud frequently snapshots all data files and backs them up. Easily access earlier revisions at any time—no need to master a revision control system, though you may easily use one if you want.

Course Management

Through SageMathCloud's course management you can hand out assignments to your class, collect them with one click, grade them, then return them.

Available Software

SageMathCloud is focused on computational mathematics, especially everything related to the open-source mathematical software *Sage*. However, SageMathCloud is not limited to Sage: you can run *IPython Notebooks* on top of the full scientific Python stack or even install your own libraries and tools. There is also support for *R*, *Octave*, and emerging programming languages like *Julia*.

LaTeX

Write LaTeX documents collaboratively online in a fully integrated editor with live-preview. It conveniently displays error messages, provides forward and inverse search, and supports embedded calculations & plots via SageTeX:

$$\lim_{x \to 0+} \frac{1+\cos(x)}{\sin(x)} = \infty$$

```
$$
\lim_{x \rightarrow 0+}
   \frac{1+\cos(x)}{\sin(x)}
   \quad = \quad
   \sage{limit((1+cos(x))/sin(x), x = 0)}
$$
```