# Computing Actual Things

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#### Outline

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- Computer packages for algebraic geometry
- 2 How to install Macaulay2

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- 3 Examples, examples, and also some examples

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- SINGULAR: good for symbolic algebraic geometry (also adding interfaces to some of the tools below).
- Some tropical tools: gfan, TOPCOM, Polymake.



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- 2 Download the appropriate file based on your computer.
- Follow set-up instructions (using Terminal if on a Mac).
- Either operate M2 through Terminal or download an emacs application, like Aquamacs.

## Examples, examples, and also some examples

# **EXAMPLES!!!**

## Thank you!

- David Eisenbud, Daniel R. Grayson, Michael E. Stillman, and Bernd Sturmfels: *Computations in algebraic geometry with Macaulay 2*, Springer-Verlag (2001).
- Daniel R. Grayson and Michael E. Stillman, *Macaulay2*, a software system for research in algebraic geometry, available at http://www.math.uiuc.edu/Macaulay2/