Sketch of "Shameless Mathematica"

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Course Description. Yes, we all dream of the day we will prove that powerful theorem, whose beauty and sophistication will leave our colleagues breathless. It will, of course, be a product or pure thought, affirming that our intellect rises far, oh so far, beyond everybody else's. Obviously, no computers will be used. We are artists and philosophers, not technicians.

As a temporary measure I have learned to work with computers, and I plan to share what I have learned with you. For me, computer-assisted mathematics is a powered exoskeleton (seen Avatar? Iron Man?) for the brain. It's still my inner powers that everybody should admire, yet they reach much farther now that I've learned how to integrate them so tightly with the machine. Learn that too and reach far! I often use the platform "Mathematica" (though not only), and hence that's what I'll teach (though perhaps not only).

About one third of the course will be a systematic overview of Mathematica following that or another textbook. The other two thirds will be divided into chapters, each about some (mathematical) real life problem that I have at some point encountered and solved with computers. The typical chapter will start with a mathematical introduction (sometimes deep and meaningful in itself). I will then pose a computational problem, and challenge you to solve it better than the solution that I found and will present a week or two later. Many (though not all) of the problems will involve algebraic computations in knot theory, as this is what I know best. There will also be graphics, and some interaction with the web and with TeX.

Sketch - Spreadsheet

Backwards searched to 2015-06

Topic	Hours
The spheres riddle	1
Easy Kauffman	1
Efficient Kauffman	1
Brute Khovanov	2
Efficient Khovanov	3
Gamma Calculus	2
LaTeX integration	1
Planet Hopf	2
Hilbert 13th	3
NCGE	2
Total	18