

Good Students

Graduates and Undergraduates

J. Nathan Kutz

Department of Applied Mathematics
University of Washington
Seattle, WA 98195-2420
Email: kutz@amath.washington.edu

▶ Advance Workshop 11/9/06

Practicalities: Senior Faculty

- Big name senior faculty: least risk option
 - support
 - grant money for RA
 - travel money for conferences
 - in touch with “local” money
 - connections
 - well-connected in field
 - feasible collaborations with outside groups
 - job
 - one phone call
 - (see connections above)
 - part of a big (supportive) group



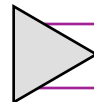
Practicalities: Junior Faculty

- Junior faculty: higher risk option
 - support
 - grant money for RA (?)
 - travel money for conferences (?)
 - in touch with “local” money (?)
 - connections
 - well-connected in field (?)
 - feasible collaborations with outside groups (?)
 - job
 - one phone call (?)
 - (see connections above)
 - group (?)



More Facts/Fiction

- Junior faculty
 - more time
 - more energy
 - more academic freedom
- Senior faculty
 - less time
 - more energy elsewhere
 - part of the machine
 - research often more constrained

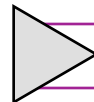


Making a Bid: Teach a core grad course!

This is how to be a good friend. No kicking, elbowing, pushing, pinching, biting, and headbutting. No yelling at each other. No poking each other and no smacking each other because it's not a nice thing to do to other people.

Regina, Age 6

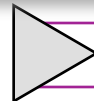
Rewrite with adult equivalent (grad students talk)
(Physical → Emotional/Verbal)



An Alternative: The Undergrad

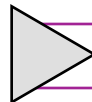


- Hang up free!
- Come in X-Large sizes



More about undergrads

- not looking for a career job
- flattered that you pursue them
- no “Is this really what I want to do with my life”
- highly enthusiastic ... and naively creative
- no worries about “their thesis project”
- very appreciative
- **TALENT!!!!**
 - how good are your grad students?
 - top undergrads go to the Harvards/Princetons/etc



My undergrads

A98-S01 Brandon Bale (ACMS and *Mary Gates Fellow*)

S99-S01 Derek Bentsen (ACMS and *Mary Gates Fellow*)

S00-S01 Kristin Spaulding ♦ (ACMS and *Mary Gates Fellow*)

Honors Thesis: *Modelocking in an optical fiber ring lasers*

A00-S02 Brandon Warner ♦ (ACMS)

W01-S02 Matthew Patterson ♦ (ACMS and *Mary Gates Fellow*)

Honors Thesis: *Coupled Multi-species Bose-Einstein Condensates in ...*

A01-Su02 Jennifer O'Neil ♦ (ACMS and *Mary Gates Fellow*)

Honors Thesis: *Pulse Dynamics in Actively Modelocking Fiber Optic Lasers*

W02-A02 Dutch Meyer (ACMS)

A00-S03 Karen Intrachat ♦ (ACMS and *Mary Gates Fellow*)

W03-S03 Noel Fitzgerald (ACMS/Chemistry and *Mary Gates Fellow*)

Honors Thesis: *Laser-Induced Plasmas: Dynamics in Air*

W03-S04 Leslie Butson ♦ (ACMS)

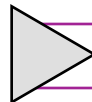
A03-S06 Joshua Proctor ♦ ♦ ♦ ♦ (Aeronautical and Astronautical Engineering and English and *Mary Gates Fellow*)

S04-Su05 Braxton Osting ♦ (Mathematics and *Mary Gates Fellow*)

Honors Thesis: *Stability and dynamics of transverse ...*

S04-S07 Kimberlee Shish ♦ (Aeronautical and Astronautical Engineering and *Mary Gates Fellow*)

W06-S07 Joel Nishimura ♦ (Mathematics and *Mary Gates Fellow*)



My undergrads

A98-S01Brandon Bale: Honey Baked Ham → UW Applied Math (expected PhD 2008)

S99-S01Derek Bentsen: Virginia Law → \$\$\$

S00-S01Kristin Spaulding: Master UW Applied Math → Lockheed Martin

A00-S02Brandon Warner: Scientific programming jobs at Startups

W01-S02Matthew Patterson: UW Applied Math (expected PhD 2007)

A01-Su02Jennifer O'Neil: BU Law → \$\$\$

W02-A02Dutch Meyer: Microsoft → UBC CS

A00-S03Karen Intrachat: NSA → Mitre → Masters in Finance → \$\$\$

W03-S03Noel Fitzgerald: UW Chemistry (PhD 2011)

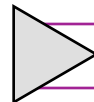
W03-S04Leslie Butson: Marriage + Kid → no \$\$\$

A03-S06Joshua Proctor: Princeton (expected PhD 2011)

S04-Su05Braxton Osting: Columbia (expected PhD 2010)

S04-S07Kimberlee Shish: high end grad school

W06-S07Joel Nishimura: high end grad school



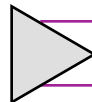
How to Make it Work with Undergrads

Recruitment

- identify talent early!
- get to know them
- be wary of those walking in off the street
- money is no object

Making it worthwhile

- think about 2 year commitment
- first year of work is slow: what are basic skills necessary
- don't expect them to know the big picture!
- this isn't necessarily their career
- DO A PROJECT YOU WANT ARE GOING TO DO ANYWAY!!!!



The Future ...

