

math

NEWS

Volume 98, Issue 4

Friday, June 24th, 2005



The End of an Era



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lookAHEAD**mathNEWS**

June 24	Issue #4 plays some Ultimate
July 4	Issue #5 Production Night 6:30 PM, MathSoc (MC 3038)
July 8	Issue #5 plans a cottage weekend

Math Faculty

Today	Last day to WD from a course
June 23	Goodbye Shirley, Hello Jack
June 30	Alan George reaches expiry date
July 1	Tom Coleman officially New Hotness

MathSoc

Thursdays	Movie Nights, 7:00 PM, MC 2066 2 movies, 0 dollars!
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MGC

Wednesdays	Pizza Day!
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Miscellaneous

July 1	Canada Day!
July 4	Independance Day (down south)

mastHEAD*You Don't Win Friends with Salad*

The adventures of *mathNEWS* in the Mac labs continue. It goes a little smoother now that we all have logins. It would be a whole heck of a lot easier if all Math Undergrads were allowed logins to computers in their own buildings, but that's life. Given that Macs are all about the X now, why don't we just switch the Unix terminals to Macs? We could get nice pretty iMacs everywhere and still have more functionality than those wretched machines in there now. Okay, Macs aren't THAT cool...yet.

Since there was a lot of whining about how *mathNEWS* pizza only came in non-vegetarian options this week, we asked our staff "What the heck is wrong with vegetarians?": Richard (Those poor defenseless soy plants!), Mark (The ignore:Meat+Fire=good), Michael (What a waste of canine teeth), Dan (I guess they've never heard of something we call the "food chain"), Jenn (They are the ones who used to eat nothing but meat, and had to revert), Aaron (They're always finding a way to raise the bar for the rest of us trying to get into heaven).

Thanks to Graphic Services and Campus Pizza. G-UNIT!!!!11!
[WTF? I blame Ian. — inkEd]

Eric Logan (B12 deficiency leads to hallucinations)

Ian W. MacKinnon (Lack of protein leads to hippyness)

profQUOTE-acious

[Midterm exam instructions] "No books, calculator, notes, music players, or electronic devices of any kind, especially no trumpets, are permitted. Telepahty is also prohibited. Photos of Alex Trebek are not strictly disallowed unless it is larger than 20cm by 30 cm."

Marcoux, PMATH 336

[Introducing Dini's Theorem] "I always think of this as Flintstone's Theorem."

Hare, PMATH 351

MathSoc Movie Nights!

Still free!

As the term continues to chug away, I'm continuing to show movies in MC 2066 on Thursday nights. Attendance has been pretty good, but guys, how about trying some of our concessions? If the current concession sales don't improve, we may have to start charging admission again! Anyways, on to the more pleasant things: Telling you guys which movies are playing in the next two weeks!

June 30th: Edward Norton Night

7:00 PM - Primal Fear

9:00 PM - Fight Club

July 7th: Romantic Comedy Night #2

7:00 PM - Guess Who

9:00 PM - Fever Pitch (This one is not 100% confirmed yet, but should be by the time this issue hits the shelves)

So, here's where I usually tell you how awesome Movie Night is, and all that other stuff. Why should I tell you? Well, you should come out and see for yourself! Remember, Thursday nights starting right at 7:00 PM in MC 2066!

Mark the MathSoc Movies Guy

MGC 2006 goes White-water Rafting!

That's right, we're organizing a trip rafting on the Ottawa River July 22-24. (That's TWO weekends before exams, so you'll still have time to study when we get back.) There will be great (all-you-can-eat) food, great friends, and TONS of fun going white-water rafting, kayaking, canoeing, anything you can imagine! (There's even bungee jumping nearby, if you're crazy enough.)

Tickets include all meals, rafting and use of the resort facilities, and camping and are \$160 including round-trip transportation or \$140 if you make your own way. Spaces are **extremely** limited, and the first day of sign-up (Tuesday June 28, 10:00 am in the third floor hallway) will be for GRADS ONLY. After that it's first come, first served.

So get a bunch of your graduating friends together, this is going to be an amazing experience!

Diana Chisholm

dkchisho@uwaterloo.ca

MGC Social Director

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Kickin' it old school: Ian MacKinnon, Eric Logan and Jenn Smith

MGC Sez

Greetings fellow grads! The end of midterm season is approaching, which means we can start doing things that aren't... midterms! We have a number of exciting items on the agenda, and here they are in order of excitement:

Whitewater Rafting Trip!

You may have heard some rumbling about a plan to go to the Ottawa River to hurl ourselves down rapids in small rubber rafts. Well, it's happening. More details are elsewhere in this issue! Look for it! And better yet, sign up next Tuesday in the third floor hallway.

Also, we are hoping to run other events for the graduating class, since not everyone will want to go rafting. Watch for an alternate social event, held in Waterloo, for the graduating class. It would involve food, maybe some fire, and lots of good times.

Class of 2006 Group Photo

The date for the Class of 2006 summer group photo has not been finalized yet. However, a brief survey suggested that the preferred time to have our photo taken is on a Monday afternoon. Our photo will be taken sometime in early or mid July, so watch for signs around MC announcing when and where. Remember, the group photo might be the most important moment of your career at UW, so don't miss it.

Grad Photos are continuing...

...for now. Photo signup will stop once people stop signing up. It's as simple as that. Sign up on the MGC notice board across from the C&D on the third floor of our building. Having your photo taken will also get you a copy of this spring's group photo!

Volunteers Still Needed

MGC wants you! If you have some skill and talent, especially when it comes to things like a website and a yearbook, we want to hear from you. We are looking for the best webmaster this faculty can muster, and I have it on good authority that some of the people reading this page are pretty terrific web artisans. There's no better use of your time than building a website from the class of 2006. If you're interested, come by the MGC office and introduce yourself - we want to hear from you!

That's it for now. Remember: whitewater rafting wants YOU!
Cheers!

Alex Perel
MGC Chair, Spring 2005

Ontario PC Leader to Visit Waterloo Campus

On Wednesday, June 29, 2005 at 2:00 PM, John Tory, the leader of the Ontario PC Party, will address University of Waterloo students and all those who choose to attend in the Great Hall of the Student Life Centre. This will be an open event and a great way to meet Mr. Tory. After his speech, John Tory will be available for questions and answers from the audience.

John Tory will outline his party's plans for Ontario as well as how youth can get involved in politics. For more information, contact brendan@campusconservatives.ca.

Brendan McLaughlin
3A Statistics

Live 8

The Canadian Connection

There will be a Live 8 Canada Concert. It will be held in Ontario. Southern Ontario. The only thing left to be determined on Production Night was where (and the entire act, of course). With huge names like U2, Paul McCartney and, believe it or not (yes, I'm risking legal action from Ripley's), the original cast of Pink Floyd doing THE BRITISH version, this reporter is wondering who will be doing the Canadian version. Current rumours have The Rolling Stones back in Ontario (they were here for SarsStock in 2003). I'd be surprised if Canadian bands like The Guess Who, the Barnaked Ladies, Rush and Great Big Sea weren't at least contacted to join such a lineup. But really, if I win the lottery in the next week or so, I'm off to Britain for July 2nd. Sure I'm seeing Sir Paul in October, but I got shafted by Ticketmaster on U2 tickets for September. And Pink Floyd? Really. They haven't performed as a whole in my lifetime. That would rock. Literally.

Mark "Beatlemaniac"

VPAS Sez

How's everyone surviving their midterms? This is probably the toughest time of the year. You've got assignments that needs to be handed in, midterms to study for and not much time left for a social life. I know that I, for one, am dying for a break, but, never fear, your friendly VPAS is here (or until she gets slaughtered by the MATH 239 midterm).

Next Friday is Canada Day, and I hope to see each and every one of you out. It's going to be a lot of fun, there's games (get some of your aggression out with hit the birdy, or killer bumble bee), there's food, music and fireworks. What more can you want after a tough 3-4 weeks? If any of you are still interested in volunteering, there's still plenty of room left, and when we say the more the merrier, we really mean it! There's an info session and logistics meeting for Canada Day this Friday (yes TODAY!) June 24th from 4:00-5:00pm in MC 4063, so just show up.

Well, that's it for now, back to studying for my 2 other midterms...Please note that writing three midterms in three days is a BAD BAD idea [*Pfft. Try three over 18 hours. — inkEd*]. Especially if you get sick right before and/or not sleep [*Check and check — inkEd*]. It's a bad bad combination... Also getting high on sugar right before a midterm is also a bad idea, it's great when you start out the midterm but after an hour and the sugar wears off. It's not pretty.

Shipped off to the slaughter houses, [*Cry me a river... — inkEd*]

Linda Wang
MathSoc VPAS S05

MathSoc Beach Trip!

Hey everyone, now that summer's here, it's time for a trip to the beach! Wasaga Beach, to be exact. We'll be sending a nice big yellow school bus leaving from the DC at **9:00 am on Saturday, July 8**, and returning by **6:00 pm** the same day. So if you're up for some fun in the sun, sign-up will start next week in the third floor hallway. Bus tickets are only \$10 (great if you can't afford or can't make the white-water rafting trip), and of course it's free if you want to drive up there yourself. Don't forget to bring sunscreen, towels, and your friends for an awesome day!

Paul Ullrich
MathSoc Social Director

ElseWhen

25 Years ago in *mathNEWS*

Since there was only one issue in Spring '80, it was chock full of interesting tidbits. The editor was of course furious that no one would write in the summer, as we all are now. But he managed to pull together a full issue by threatening to cut off writers' math/CS accounts.

Dirty Mathie

Fun Quotes

Although *profQUOTES* had not been started yet, other quotes could be found sporadically, such as:

"You're messin' up the water, and you're rollin' in the wine...You're poisoning your body, and you're poisoning your mind..."

Just one of many interesting comments by Young Frank Einstein, a regular fiction columnist at the time.

Science Fiction Mania

- Science fiction is the subject of choice with the release of "The Empire Strikes Back."
- The Watsfic club plans activities.
- A Hitchhiker's Guide to the Galaxy parody is begun by a staffer.
- There is a debate out about whether or not there is a cellular automaton describing the earth's life system (begun by Young Frank Einstein last issue).

Would you like some Punk with that Wine?

The brand new social committee of mathSOC plans a punk wine and cheese night (who would have thought they go together) to feature the Clash! Too bad they aren't still around.

Mathie Events

Other events are mostly mathletics, as the trip to Toronto to see Star Wars was cancelled due to lack of interest, of all things.

Is it really summer yet?

Global Warming my @\$

The heat wave that swept Waterloo the week of June 6th has come and gone. Temperatures returned to seasonal lows on about June 15th and people are happy again. Well, not all people. I happen to like the occasional day when it feels like you're going to melt like that piece of chocolate you forgot in your pants pocket. It's good for the human body every now and again. Besides, this is supposed to be SUMMER (FYI, Summer officially began on Tuesday, so the day AFTER I'm writing this, and 3 days BEFORE you are reading it). I've got my A/C ready to go for night time, when nobody really wants to be too hot to sleep (yes, we are talking about those times when we sleep), but I've yet to have to use it (it was finally installed on Saturday).

Mark "Beatlemaniac"

The Cardinal Rule of *mathNEWS* Layout

There's gonna be filler. Deal.

Dean of Math Leaving

J. Alan George has decided to leave the job of Dean of Mathematics for the second, and perhaps last, time. But don't worry, he still loves the Math Faculty. He will still be here as the Associate Provost for Information Systems & Technology, and perhaps even as a professor.

Our Dean started at UW in 1971, and became Dean the first time in 1980. As he said, he "stepped into the job woefully inexperienced," and had to learn a lot to lead this faculty. Even he admits, "the learning curve that first year or so was pretty much vertical."

Of course, after leaving the job in 1986, he missed UW so much that he came back. He longed for the pink tie, and returned to an academic post before being strong-armed into taking on the Deanly duties once again.

While here, Dean George has done many great things for this faculty. He helped the initiative to recruit international students, which all of us know has boosted our prestige (while bringing the average grade up, unfortunately). He introduced the BMath/BBus double degree with Laurier, "which has been phenomenally successful." And he helped coordinate the new Computational Math program, among many other daily tasks to help our faculty.

The job of Dean is much more work than it may seem to us. Not only does he, along with his staff, look after the day-to-day running of this faculty, but he also meets with the higher powers that be to make all important decisions for this University at the Deans' Council. Nothing happens without their okay. One of the most important things that he does is hire and review faculty members. He has hired profs from the best schools in the world, and fires those who don't measure up to UW's high standards.

Clearly Dr. George has a talent for administration, but his favourite job is teaching. He didn't have much chance to teach after graduating and before being offered the Dean's job, but when he did, he was "happy as a clam."

As for his plans for the future, he claims that "if circumstances permit, I would be happy to be back in the classroom," as a CS professor. He will continue as Associate Provost until 2007. Of that job, he says that "even though I have been around a long time, there are lots of things about information systems and information technology that I don't know. And I think I can bring a different perspective to those activities than others might, simply because I've been around."

He also hopes to work on his research, which he has been neglecting lately. The Dean is a very busy person, and mixing two jobs does not leave much time for playing. Although his research has not stopped, he has two books in the works which he has not had time to finish. His "calendar has been completely blanked out for the last 2 years," between his two jobs.

While a few bumps have not made his job easy, Dr. George looks back on his time as Dean with great happiness and pride in the students and the faculty members he has led. He is especially proud of our performance in the ACM and Putnam competitions over the past years, giving UW Math (and our Dean) a reputation of excellence. He has enjoyed his time with us, and hopefully will enjoy the different challenges posed by his new administrative duties.

So if you have time (and if he has time), visit the Associate Provost in his new office on the 6th floor, directly above his old one, to learn a few things about IST at UW, and maybe even some secrets about the math faculty.

Jenn the Dirty Mathie

Real Dean of Math Leaving

For the last fifteen years, the Math Faculty has been blessed to have the steady hand of Shirley Thomson guiding it from behind the scenes as Executive Assistant to the Dean of Math. Though she's too modest to ever admit it, Shirley's knowledge and wisdom have been perhaps been the Faculty's greatest asset during her tenure.

As Executive Assistant, Shirley describes her official duties as minding the finances of the Faculty and acting as an HR contact, keeping an eye on all staff in the Faculty. The EA is also officially charged with managing the space and equipment belonging to the Faculty.

However, anyone who's ever dealt with Shirley knows that her unofficial duties go far above and beyond those few things. Shirley's knowledge of all things dealing with the University is encyclopedic, which makes her practically everyone's first point of contact when dealing with the Dean's office. Shirley views her role as that of a facilitator, feeling that there's a very strong subtext to her official duties; Shirley's the person to speak to when you want to get something done.

Shirley's history with UW starts in those foggy days of the late 20th century. Shirley has a BA in English Literature (not from Waterloo). Upon completing her degree, despite her strong interest in Medieval studies at the graduate level, she chose to marry Jay Thomson and start a family. When Jay, nowadays a professor in Kinesiology, came the University, she signed up in Waterloo's new MA in English program, doing work in Renaissance poetry. However, upon completion of her MA, there was no Ph.D. program for her to enter, so she moved into other territory. Shirley told us that while she decided to put it off for ten years to have children, the opportunity never really came back for her. "Besides," Shirley told us, "I doubt I would be enjoying English Literature as much as my work today."

Shirley has had many, many dealings with students in her role as EA. When asked about her best experiences with students, she was pleased to tell us that among here favourites were Orientation and the Math Grad Committee. She loves most the energy that she sees coming from both new and old students. Shirley also notes Pi(e) day in March as one of her favourite events.

As for worst experiences? Shirley told us that while nothing really sticks out in her mind, the worst part about dealing with students is when they've disappointed her. "When I started in this job, the boys [her two sons] were about University age, so I've always treated students the same way," Shirley said. Shirley expects everyone to make good decisions and act appropriately, and it's really her trust in students that makes her so popular.

Shirley's been behind more than one initiative in the Faculty, although in her modesty, she'll never admit it. Shirley has the amazing talent for whispering in someone's ear, "Wouldn't it be great if..." and then causing the right thing to occur. A fine example of this is Tie Guard: although the legend correctly states that it was Marco Koechli who first sat outside the MC to watch the Tie, Shirley planted the seeds. In 1994, some Engineers made a rather brazen attempt to steal the Tie by dangling a few of their number over the edge of the MC roof to undo the clips that attach the Tie to the MC. Concerned about safety, Plant Operations threatened to never hang the Tie again! Shirley allayed their fears by promising to have a 24-hour guard posted, and the rest is history.

In her retirement, Shirley plans to spend a lot of time at her family's cottage on Lake Huron, do a fair bit of golfing, spend time with her grandchildren, and just get caught up on all the projects she just hasn't had time for. We asked for Shirley's parting wisdom, but at first she declined. "I'm no oracle, I just solve problems!" she protested. When pressed though, she told us, "This Faculty is really a wonderful place, and the quality of the students has really contributed to its reputation. I am very lucky to have been able to work with them."

Shirley, the honour belongs entirely to us. Enjoy your well-deserved retirement, you will be missed.

Eric "inkEd" Logan

Happenings with Engineers Without Borders

Help us to Make Poverty History

More and better aid. Trade justice. Cancel the debt. End child poverty in Canada. These are the four main themes of the Make Poverty History campaign, which is running all around the world in various forms this year. July 1 is the first International Call to Action day, where people around the world will be wearing white bands to signify their commitment to ending poverty. For more details about this, and to encourage the Prime Minister and your local MP to take action to reduce poverty, take a look at <http://www.makepovertyhistory.ca>.

Other events happening at Engineers Without Borders:

- **Discussion Forums** continue every Wednesday at 6:00 PM in the Grad House. Come discuss everything from local gas prices to globalization and how we as individuals can make a difference in the world.
- On Saturday, June 25 (yes, that's **tomorrow**), at 8:00 PM, EWB will be partnering with Warrior Weekends to put on an **ultimate frisbee clinic** and night game with glow sticks and glow-in-the-dark frisbees. Come on out to learn new skills and have some fun with EWB.
- EWB will also be having a presence at the UW **Canada Day** celebrations. Stay tuned for more detail about this.

As always, if you need more information about any of the events, or want more information about our meetings, every other Tuesday at 5:30 PM, usually (but not always) in DC 1302, check out <http://waterloo.ewb.ca>.

Development Mathie

Math and CS Convocations to be Held Separately Next Year

On a more serious note, it was announced at the last School of Computer Science meeting that for 2006 grads, the convocation for Math and CS will be held in different ceremonies. One would be in the morning while the other in the afternoon; likely on the Friday of convocation week. This comes mostly from the fact the the ceremonies are getting too large and it is rather boring for parents to wait through a thousands kids going through 3 at a time until their offspring goes up.

When SE graduates next year they will be with engineering. However, it was not announced where the SE grads would convocate in 2007 when they're the responsibility of the Math Faculty.

Ian W. MacKinnon

mathNEWS wants YOU!

Write some stuff, win some money

mathNEWS works entirely on submissions from undergrads and some especially crotchety alumni. We're constantly looking for new writers in order to reduce dependency on crotchety alumni types. In order to encourage more submissions from Mathies, we've come up with this great idea! The "best" submission to each issue this term will win **\$25 Gift Certificate to HMV**. Anyone is eligible! Faculty, alumni, staff, students, even that random guy from Iran!

How do we define "best"? Well, my co-editor and I will put our heads together and our subjective decision will be final. We promise not to choose ourselves, though, nor the editors that are off-stream right now.

We're not particularly choosy here at *mathNEWS*. Our criteria for publishing material are pretty simple: your article should be informative, interesting, insightful or funny. Long, rambling, pointless material is out. So are in-jokes, rants, and flamebait (i.e. no more articles about the damn exambank).

If you have a modicum of writing skill, feel free to submit. You have many options:

- Write it down on some paper and shove it in the **BLACK BOX**, conveniently located on the 3rd floor of the MC between the C&D and the Comfy Lounge. If you type up your article and print it off and then put it in there, we will be very upset, because you should...
- Email it to mathnews@student.math.uwaterloo.ca with the word "article" in the subject line. Alternatively, you can...
- Drop by Production Night! Write an article, and while you're there, help us with the proofreading and editing of the issue. All are welcome! The date of the next production night is given in the *lookAHEAD* of every issue.

See, isn't that simple? So, in summary, write for *mathNEWS*, win \$25 to HMV! Submissions for the next issue are due at **6:30PM on July 4th**.

Eric "inkEd" Logan

If you have questions, send them to mathnews@student.math.uwaterloo.ca

Bayesians in the Night

http://renoir.vill.edu/~short/quotes/Bayesians_in_the_Night.html

Bayesians in the night,
exchanging glances.
Bayesians in the night,
assessing chances.
We'll be sharing risk
before the night is through.

Something about your prior
was so exciting.
Something about your data
was so inviting
When I saw your posterior
I knew I needed you.

Top 10 places to live on campus

Because it's too damn hot to walk to class!

10. MathSoc: *no one would notice you anyway*
9. The Comfy: *if you can handle that unidentified stain on the couch*
8. A classroom: *move every day to avoid suspicions and smells*
7. Tim Hortons: *open 24 hours for your sleeping convenience*
6. SoftEng lounge: *the leather couches are worth breaking the combo lock for (only 15 choose 4 choices)*
5. Residence: *find a frosh to "share" with, then kick them out[Or, you know, don't... — inkEd]*
4. Forest by V1: *fight with the squirrels for the best branch*
3. A park bench: *for those in the hobo apprenticeship program*
2. B2 Green: *protest the new Nanotech building. They shouldn't build while you are there...*
1. The Dean's Office: *I hear he's leaving and won't need it anymore*

Some more tips for campus dwelling:

Even though we are mathies, don't forget to bathe: take some soap outside when it rains! If cheap food is not as plentiful as you would like, just light a bonfire in your bedroom of choice to roast some hotdogs and marshmallows (or whatever is at hand, such as a squirrel). Happy house hunting, and good luck!

Dirty Mathie

Top Story: Barney Takes Over Campus

In a recent development it has been observed that Barney, who has been in 'retirement' for the last few years, has decided to take over the UW Campus. Starting with light-hearted songs from his popular TV show being played quietly over the campus sound system, he anticipates a fullscale hostile takeover in little over a week.

Most noted for his visual appearance - namely a 6' 2" obese purple dinosaur - and his young children's television series, Barney went into self-induced retirement after coming up against charges of molesting young hatchlings. He was acquitted after claiming he didn't realize that the eggs were hatching when he was playing with them.

According to various media sources, his attempt to take over the world was foiled when his accomplice - a yellow triceratops named Sarah - was taken into US custody for having a bodily structure bearing WMDs. Consequently, Barney decided UW was an optimal target given its history of technological advances (see: RIM and Bobble Dog).

Administration was unavailable for comment, but it is believed that no action will be taken, as those who are presently afflicted - namely the students - really have no opinion or impact on campus, and are just figments of the faculty's imagination (see: B2 green construction).

Students are being advised to be prepared to give hugs when paying tuition, and to play patty-cake with TAs when seeking help.

In other news, more than one gopher was discovered on campus, leaving the attempt to name the 'campus gopher' useless. (see: <http://www.bulletin.uwaterloo.ca/2005/jun/01we.html>)

The Need for 4th Year Design Projects in CS

Engineering has them, science has them, why don't we? Virtually every technical major has 4th year design projects that are required of its senior students in order to graduate. If you've ever gone through the DC atrium in winter and seen a bunch of students in front of cool-looking electronic toys (most of which have to do with wireless for some reason), you've seen ECE design projects.

To get a degree in CS you have to prove that you're smart, motivated, and skilled. Yet we don't require any creativity. The only projects we have in CS are ones that have strict guidelines and are really more about testing your ability to make what has already been done, not make something new. Not that CSers should be inventing new OSES for CS350, but there should be some opportunity where we tell CS majors to go forth and do something "cool". A 4th year design project would be a simple way to accomplish this without overhauling the rest of the curricula.

UW admin throws the word "Innovation" around like it's going out of style, but it hasn't really trickled down to the CS curriculum yet. Imagine the benefits to the reputation of the School if every year all CS 4th years had to put their education to use to

create something new and exciting in the CS field. A few of the more marketable ideas may even go on to become start-ups if venture capitalists start coming to the demonstrations looking for the next Google.

As with many other majors, a CS design project would start as a proposal to a faculty advisor. If the idea for a project has sufficient merit, then the advisor could sign off on it and the student(s) would then set about to create. At some point, the software system or other project with sufficient CS merit would be submitted for credit, and would have to be demonstrated in some sort of public symposium. Perhaps there would be an award for the "best" project. If we really want to foster the entrepreneurial spirit of UW, it would be a grant to create a start-up based on the project.

Not every project would have to be the starting grounds for the next RIM, some of the best innovations in computing may be as simple as "piece of software that automatically prevents you from falling for a phishing scheme". No matter what the projects are, only good will come if it fosters creativity, innovation, and an entrepreneurial spirit at UW CS.

Ian W. MacKinnon
mathNEWS Editor

Spring term, the season of love?

Everywhere you go there are couples holding hands or snuggling. Does that bother you? Do you wish you could be one of those shiny happy people? Well, contrary to popular belief, it's not impossible! Sure, half of the term has gone by already, but you still have plenty of time to sweep the girl of your dreams off her feet. [For any girls reading this, I'm just going to warn you that you might have many guys ask you out in the next few weeks.] My assumption is that you're a typical Mathie, which means a geeky male.

First of all, ignore anything you've heard about what girls like, because the fact that you're a geek is going to help you in many respects. There have been numerous articles written recently that have celebrated the geek as a mate. If you don't believe me, google "geeks make good lovers" for some 991 000 results. Some of the reasons why geeks have been discovered to be good mates are as follows:

- Geeks are good at what they do.
- Geeks can concentrate.
- Geeks are imaginative.
- Geeks are loyal.
- Geeks are useful: they can fix your computer or make a web page about how much they love you.

Now, if girls haven't noticed the wondrous geek-guy inside

you yet, it's up to you to show it to them. I'm not saying you should spam the girl you like, but you should find a way to tell her that you think of her romantically. There are many books about seducing girls, but I'll just sum up some of the major points you need to keep in mind.

In general, people want to find mates that are just like themselves, or almost. We can get bored with too much similarity, but it's nice to be able to rave about the same movies or games. Stroke her ego, but not the things she knows she's good at, the ones she seems to lack self-esteem in. For example, if she's a good programmer, but she is sometimes tardy, sincerely congratulate her when she is on time. She already knows she's good at programming.

He who waits is lost, so don't wait too long because another geek will snatch her first. Also, try to look good at all times. Yes, even after you pulled an all-nighter to hand in that crazy assignment, try to take a shower before heading to class. You never know when you'll meet a girl who could be right for you. It could happen at the vending machine, the bus stop or even in class! Another important thing is to keep eye contact. Gaze at her as if you were unable to unglue your eyes from her beauty. But if it looks like she's going to slap you if you look at her one more time, stop. She may not be interested!

Now hopefully this little guide will have given you some ideas, and mostly the motivation to do some research about how to meet and seduce girls. But if that didn't work, check out www.gk2gk.com, a geek dating service web site.

Miss Luck

*prof*QUOTES gets romantic

"Next class I'll tell you about Italian wine, Italian architecture, and Italian women... in which my interest is purely academic, of course."

So You Think Trying to Find a Co-Op Job Sucks

Is the current co-op process stressing you out a bit too much? Have you ever wished that you didn't need to go through all this work of trying to find a job while at the same time trying not to fail the courses you're taking? Have you ever wanted to be like those regular students who just get to sit back and relax? Well then I think I may have a bit of a motivational story for you. Maybe you could call it a horror story, or perhaps you'll be able to laugh at someone else's misery and it will make you feel better because you could be in their shoes, for I assure you this is a true story.

It starts in April, when a slacking regular student finishes up exams and realises, "University life is expensive, I need money by September otherwise I'm completely screwed." This student figures, "Hey I'm half done my post-secondary education, I should be able to find a job that's at least slightly relevant to my area of study" so he goes out and looks to see what exists out there in the job market. A quick scan of companies out there who have relevant jobs shows that everyone seems to be hiring now, and so this student thinks "This will be no problem at all."

He sends out some resumes to almost all of these places. Not all (as some state that the only students they will hire are co-op students), so he then goes and finds more places to send them to. He then must play the waiting game, and so waits, and there are no replies, and waits some more yet no one replies, waits a little bit longer... "Hmm maybe this incoming mail server isn't working... Oh, just got some spam, I guess it is." It's now half-way through May, and no one has even put in enough effort to say "Well, we got your resume, but we think you suck so we're not gonna give you a job." The student thinks again, "Hey, university is really expensive, AND I've already signed a lease for a living place next year, but my line of credit doesn't have enough money on it to pay those costs, so maybe I can wait for a relevant thing till next year, or just a little later in the summer. I need money NOW, though."

So our Regular student starts looking for other jobs, interesting and not, and finally ends up with a minimum wage manual labour job. He finds that there's actually half decent odds that although he's probably one of the youngest people there, he probably has more formal education than many of the people there combined. He finds himself in a job that even a monkey is overqualified for. Luckily this doesn't last forever, and he soon finds himself doing something else, slightly more relevant to his area of study. He even gets to use some of his impressive math skills. Turns out it's just grade 3 or 4 math with coworkers who don't trust the results of a simple multiplication so go double check it on a calculator anyway.

And this is where the story ends for now, and the rest of it doesn't in fact matter, you should be able to get the picture now. So, if you ever find yourself now or sometime in the future thinking about how much it sucks that you still haven't got a job, just remember you've been on at least one co-op term before, and even if the job sucked, it was much better than working on an assembly line.

DanS

Hey look! This isn't whitespace!

Stop the Kife. Libertarian For Life

Volume 1: Speed Limits

I've decided to write a series of articles, originally for MathNEWS, partly because of the promise of cool gifts, and partly because the world needs a swift kick in the behind. You see, as an evolving Libertarian, I feel it is my responsibility to inform the hapless voter (read: you) about how you are being kified (read: screwed) on a regular basis (read: every day) by the government you accidentally elected because someone convinced you they had your best interests in mind.

For those who don't know, the traditional political spectrum (left vs right; socialist vs capitalist) has evolved into a political compass that still includes the economic left and right, but introduces the social left and right. More information available at <http://www.politicalcompass.org/>. A libertarian lies on the extreme economic right and the extreme socialist left. In short, I believe the only person who should be able to deal with my money and tell me what to do is me.

If you're wondering, I used to be conservative. However, recent Canadian political developments have led me to believe that a wild feces-flinging chimpanzee would do less damage in Ottawa than any other party leader, mostly because his platform would involve opposition target practice. Without further 'mudslinging' of the Canadian political scene, let me delve into the subject matter of my first article: Speed Limits are the modern equivalent of state-sponsored highway robbery. First I need to dispell the myths that a) speeding is arbitrarily dangerous, and b) speed limits protect our safety.

A couple things you need to know: there are TWO Ontario offences that involve speeding, 'Speed too Fast' and 'Speed too Fast for Conditions'. 'Speed too Fast for Conditions' is a good offense to have as it allows the police to stop people from doing blatantly stupid things like driving 200k/h in the pouring rain. If you ever needed the state to step in to protect the welfare of its citizens, I can admit this is the time. On the other hand 'Speed too Fast' is the arbitrary offense you get nailed with when you are going as little as 1km/h over the posted limit and the five-oh is behind on his quota. Studies (and common-sense) have shown that the safe driving speed is dependent on many factors, including weather, traffic volumes, road conditions, and vehicle conditions.

To make matters worse, 'Speed too Fast' is an absolute liability offense, which means that you have no defense if the cop can prove you were speeding (not even due diligence or necessity). To make matters ridiculous, 'prove' often means that the cop has to say "I seen that vehicle dere going faster than my lass runs to confession after Sadurrday night's ho-down", to which the judge says "Harr Harr, dat's a good one Frank! Better rule dis one guilty to help pay for the abortion!" Suffice to say, innocent until proven guilty isn't necessarily sacrosanct in backwater courts where the entire income of the town is supplied by traffic tickets. At least when you get charged with 'Speed too Fast for Conditions' or 'Dangerous Driving' you have legal defenses. This article advocates the elimination of Speed Limits and the offense 'Speed Too Fast'.

Now, to the stats! The 2002 Ontario Road Safety Report (most recent one available) says there were 435,339 collisions that year. The police/collision centres have to report the 'driver action' they

(continued next page...)

believe led to the collision, and have come up with a variety of categories. 'Speed too Fast' was cited as the driver action in 0.8% of collisions. 'Speed too Fast for Conditions' adds another 4.6%, and although some of those will obviously have occurred over the speed limit, these accidents include incidents where the driver was going 90 in the snow and he couldn't stop in time. So, it's a safe estimate to say at most 5% of collisions have 'Speed too Fast' as the main driver action. To put that in perspective, the categories that cause more accidents include:

- Driving Properly (48.8%)
- Following too Close (8.7%)
- Fail to Yield Right of Way (8.0%)
- Lost Control (6.8%)
- Other (5.8%) ... which includes careless / inattentive / improper / impaired / dangerous driving, falling asleep, wrong side of road, improper parking, etc... I like to call this category 'Dumbass'.

The list goes on. I'm not going to interpret these stats because I'm not exactly qualified to do so, but if you deduced that you are substantially more at risk of getting into an accident if you are driving properly than if you are speeding, I don't think anyone would have much cause to argue.

Now the scary part: there were 1,077,670 motor vehicle offense convictions in this same year against Ontario drivers, and a whopping 63.2% were for speeding. This begins to shine the light on the consortium that manages speed limits: governments, police enforcement agencies, and insurance agencies. The insurance agencies enjoy being able to classify you as a high-risk driver if you are convicted of speeding (1km/h over) twice in a three year period. High-risk drivers pay exorbitant insurance surcharges, with little to no additional actual risk taken on by the insurance agency.

How can I make such a claim? How can we know the above statistics aren't horribly biased? Perhaps only a small proportion of drivers actually speed. Well, as I'm sure you've noticed, or at least heard, most people take advantage of the gray area that's about 10-20 over the speed limit where it still feels safe to travel without getting robbed (pulled over) on the highway. To satisfy my curiosity, I conducted an experiment (which is obviously not statistically valid) where I traveled on the 401 between Toronto and Kitchener at 105 km/h. I figured that was fast enough that I would pass a few law-abiding citizens, while being slow enough to truly appreciate how many speeders were out there. I realized I would see very few others traveling at around 105 but I really only wanted to count those going under 100 and over 110 anyway. So I dutifully passed and counted 2 trucks and 3 cars in 45 minutes, and stopped counting how many times I got passed after the 200th car/truck. It seems that the speed limit was being

'ignored' by the average person.

Here comes the crux: the governments responsible will not increase the speed limit because they're worried people will just keep going faster, thereby resulting in more accidents (even this claim is disputable: studies have shown higher speed limits increase the number of accidents, but it's quite possible this is a result of more cars using the road due to its higher speed limit rather than just the higher limit itself being the cause, and that the true rate is actually decreasing). Amusingly, the insurance companies are one of the most profitable industries in Canada. As long as the speed limits stay artificially low (they haven't changed in decades, despite car performance and safety skyrocketing over the same period), these organizations will continue to be legally allowed to tax any random, safe driver whenever the coffers start to run dry. As the number of fatalities and collisions per driver continues to drop, the number of speeding tickets continues to rise. I don't even want to think about the amount of money that goes to the insurance companies as inflated premiums.

Modern Speed Limits are a legal way for the government to tax you whenever they like under the guise of 'the benefit of the majority'. If you were pulled over by a masked bandit and asked for \$100 because you scared his donkey by driving by it too fast, I can't see you saying: "Sure, I was going to use it to wipe my rear, but your ass' looks bigger."

Some speeding is excessive and dangerous, but that's why we have those other charges. Traffic studies have shown the ideal speed limit is at the 85th percentile of drivers, where the top 15% are driving too fast. It's disgusting that 90-95% of drivers regularly break the law EVERY DAY and the governments won't do anything about it, except continue to decry speeding as a public dilemma.

Fight your tickets my friends. Do some research, and if enough tickets get challenged, the system will eventually break down. They can't afford to prosecute trivial tickets if enough of them go to court. Did you notice that the court fees are included in your speeding ticket regardless of whether you go? There are NO additional charges you have to incur, and the worse that could happen is you get forced to pay the fine, 6 months later, you were thinking of paying anyway. If you file enough requests for disclosure, you can make the po-po spend more time on paperwork than on the streets, and that means he isn't hiding behind a bush on a sunny day with his belt undone, a donut in one hand, radar in the other, radioing his buddy down the way that some punk is doing 110 on the 401 passing a truck and someone best slow him down and teach him a lesson. Don't think it will happen to you? Over half of speeding convictions are for 15 over or less.

David Wheatley

Some more *prof*QUOTES

"Be sure to bring your ID to the midterm ... because we'll be serving drinks!"

Orchard, CS 370

"If you feel you're doing poorly on the midterm, grab it and run."

Orchard, CS 370

"Be careful not to put the apostrophe before the 's'. His name was Stokes, not Stoke."

Lipschitz, AMATH 231

"You would sell your own *mother* for a computer which was 200 times faster."

Vasiga, CS 240

"Oh! You've already seen breadth-first search! Well, you can just sit back and see it again."

Schellenberg, MATH 239

"Blackberries are for drug dealers and stock brokers."

Redekop, ECON 371

Electronic Arts Tricks Bush Into Attacking China

While taking in information about how his American troops we doing this past week in their foreign stations, U.S. president George W. Bush came across some gameplay video of this weeks new release of "Battlefield 2" including some which had footage of a skirmish on one of the game's many U.S. vs. China maps. Very alarmed to see American troops getting "pwnd" by Chinese forces in a simulated battle that Bush thought to be real, he immediately declared all out war against China earlier this morning.

Lawrence Probst, CEO of EA, was reached for comment by *mathNEWS* and gave us the following statement, "This is very excellent, Battlefield 2 seems to be accomplishing our goals in making the United States fight both the Middle East and China at the same time much better than its predecessor Command and Conquer Generals ever could. Perhaps now the gamers over in China will know better and purchase more of our games so that we won't need to do this again, Mwahahahahahaha..." and the evil laughter continued until we hung up the phone, perhaps even longer.

These acts have only fueled the anti-violent-video-game movement for the obvious reasons which aren't even worth reporting, but also aided in the anti-EA movement which was just beginning to lose momentum after people have stopped caring about the working conditions scandal that many of you should know about and others won't care about.

What these events mean towards global peace are still unknown, but it's looking like things are looking down.

DanS

Coming no time soon

The mathNEWS T-Shirt



Would you actually buy one? Shoot the editors an email at mathnews@student.math.uwaterloo.ca

Hey! Look over there!

Whatever it is, it sure isn't filler

Love and Tensor Algebra

Come, let us hasten to a higher plane,
Where dyads tread the fairy fields of Venn,
Their indices bedecked from 1 to n,
Commungled in an endless Markov chain!

Come, every frustrum longs to be a cone,
And every vector dreams of matrices.
Hark to the gentle gradient of the breeze:
It whispers of a more ergodic zone.

In Riemann, Hilbert or Banach space
Let superscripts and subscripts go their ways.
Our asymptotes no longer out of phase,
We shall encounter, counting, face to face.

I'll grant thee random access to my heart,
Thou'lt tell me all the constraints of my love;
And so we two shall all love's lemmas prove,
And in our bound partition never part.

For what did Cauchy know, or Christoffel,
Or Fourier, or any Boole or Euler,
Wielding their compasses, their pens and rulers
Of thy supernal sinusoidal spell?

Cancel me not — for what then shall remain?
Abscissas, some mantissas, modules, modes,
A root or two, a torus and a node:
The inverse of my verse, a null domain.

Ellipse of bliss, converge, O lips, divine!
The product of our scalars is defined!
Cyberiad draws nigh, and the skew mind
Cut capers like a happy haversine.

I see the eigenvalue in thine eye,
I hear the tender tensor in thy sigh.
Bernoulli would have been content to die,
Had he but known such a $\cos 2\pi$

Author Unknown

Courtesy of Stephanie Ens

[I think it's written by Stanislaw Lem — inkEd]

Another dose of profQUOTES

"Every time we don't know what to do we write down 'algebra' there."

Van Beek, CS 245

"The next part is easy. And when does it get super hard? Not until the end of the course."

Van Beek, CS 245

"With a compact set, troubles don't have any place they can escape to!"

Hare, PMATH 351

A depressed cubic equation is not a cubic that's having a bad day."

Crippin, CO 480

Squiz #3

It's unbelievable! It's incredible! It's Squiz #3! As usual, we'll begin by going through last week's answers:

Summer: 1) LFO 2) *Summerland* 3) Summer Wheatley 4) *Survivor* 5) A sun, a moon and a coconut cream pie **Heat and Hot Things** 1) *Dr. Mario* 2) *Saturday Night Live* 3) 451 degrees Fahrenheit 4) *Canned Heat* by Jamiroquai 5) The sun **Weather** 1) British Columbia 2) *It's Raining Men* 3) Channel 16 4) Wind Speed 5) Helen Hunt and Bill Paxton **Ice Cream** 1) The Country's Best Yogurt 2) Baskin Robbins 3) Super Kid 4) Pistachios 5) Vanilla, Chocolate and Strawberry.

We have 3 submissions this issue. Jenn Meacoe, one half of Squiz #1's winning entry, submitted for a score of 14/20. Also submitting was Leah Hinnigan, who missed only one question for 19/20. However, it was the team of David Jones and Charmane Zeigner who took this week's prize with a perfect 20/20 submission! You can pick up your \$5 C&D gift certificate at the MathSoc office (MC3038)! I'd also like to give a special mention to Nathan Oldridge, who submitted a 13/20 Squiz #1 this week. You're a tad late, but I do hope you decide to submit this issue's Squiz!

Speaking of this week's Squiz, let's get to it! As you may or may not know, the 2006 Orientation Week Leader Retreat is taking place this weekend, so the Squiz will have Frosh Week themed categories. Feel free to think back to when you were in first year, then submit the answers to the following questions either to the black box outside the C&D or by email to mathnews@student.math.uwaterloo.ca and you might win this issue's gift certificate and get a meal fit for a frosh (or an upper year looking for some delicious chow).

Flying and Aviation

1. Which Wright brother piloted the plane on their famous flight?
2. In which film did Leonardo DiCaprio play a charismatic man who impersonates various people, including an airplane pilot?
3. What line comes after "Sky rockets in flight?"
4. In the card game *Magic: The Gathering*, what does it mean to say that a creature has flying?
5. What musical film contains the song *One Day I'll Fly Away*?

Mmm, profQUOTES

"If you put a microscope on it, you couldn't tell the difference between a linear function and a differentiable function."

Redekop, ECON 371

"If an isomorphism has domain equal to its codomain, it's an automorphism, named after an Italian mathematician."

Marcoux, PMATH 336

"I will guarantee you this will be on the midterm, and I guarantee you that you will get it wrong. Because I have put the wrong definition under the wrong heading on the handout."

Masterman, BUS 231W

"I'm going to pretend I'm a statistician. It will be just like Halloween, and just as scary."

Vasiga, CS 240

"Since you're all in computer science, I know you've seen Monty Python movies."

Vasiga, CS 240

First Year

Tell me the first year that...

1. Prince Edward Island was recognized as part of Confederation.
2. The World Cup of Soccer was played.
3. George W. Bush served as U.S. president
4. High school students graduated from the new Ontario curriculum.
5. Benedict XIV served as Pope.

My Baby, She Wrote Me A Letter

The answer to each question is a pair of words. The second word in each pair is created by scrambling the letters in the first word and adding a letter (for example, core and force). Your job is to identify each pair of words from the definitions given.

1. 500 sheets of paper, and a dairy product thicker than milk
2. A vertex of degree one in a tree, and a short story sometimes used to teach a lesson.
3. To be exhausted and out of breath, and to gradually decrease in number.
4. A series of movements usually done to music, and a old-fashioned source of light
5. The key commonly used for indenting in word processing, and the second letter of the Greek alphabet

Frosh Week Themes

1. In the US army, a Lieutenant General wears how many stars?
2. In Chinese legend, which star was said to represent a seamstress separated from her love, a shepherd boy, by the milky way?
3. Which company is associated with a "57 varieties" slogan?
4. In which year did the Chernobyl meltdown disaster occur?
5. Match each of the previous 4 questions to a recent Waterloo Math Orientation theme and give their respective years.

Alright, get to the answering!

Squizmaster Stoken

"If you don't like being misled, then you shouldn't listen to me."

O'Donovan, PHYS 122

"Let V, W, D, C, and T be as above. Then the matrix (unfortunately no one can be told what the matrix is) of T (although I am going to anyway) with respect to D and C is..."

Marcoux, MATH 146

"Find vertices that cross that edge ... it's going to be disaster."

Zima, CS 341

"Someone is going to be punished and that someone is not me."

Zima, CS 341

"When divide and conquer doesn't work, greedy algorithms are getting counterexamples, and brutal force is too brutal..."

Zima, CS 341

"You've got exponential blowup number of calls."

Zima, CS 341

gridCOMMENTS

So I hear some people won last issue's grid (and the one before that, too), but this issue's *gridCOMMENTS* are MIA, so I can't tell you who the winners are. Sorry! I promise you will be told next time!

Solutions to last issue's grid are somewhere in this issue, so mark your own submission!

If you are planning to submit this grid, the *gridQUESTION* is: "How do you keep from losing things?"

inkEd

Conventional

ACROSS

1. undrenched toupee
5. responds
9. ogle
11. because of an office: ex-_____
12. linguistic unit
13. sketch
14. simple and charming
15. make a mistake
17. lunatic
20. vibrate (pref.)
22. songs of worship
23. famous Greek temple
26. _____ corpus
30. pulley
32. Math's retiring Executive Assistant
33. insulting term
34. became sick
35. drank
36. a UW technology group
37. cultural and racial
38. broad cloths

DOWN

2. hold back
3. Kansas city
4. JHis Deanness
5. fix
6. assistant at worship
7. UW Library's system
8. Common Mel's Diner orientation contribution
10. shoe fastener
16. Cuban dance
18. earn an A
19. spirit force
20. telnet alternative
21. absent in the military
23. ashes to ashes and _____ dust
24. spread over a surface
25. mischievous person
27. friendly
28. museum display
29. very clean
30. like a string of events leading back to the starting point
31. worthy of praise

Solutions to Issue 3's Grid

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M	E	D	I	C	I		R		A	F	L	O	A	T	
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A	F	F	R	O	N	T		S	T	A	R	V	E	S	
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	R		L		R	H	Y	M	E		S		E		



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