# math

Volume 48 Number 1



Friday, September 16th, 1988

#### LookAhead

Cinema Gratis September 21	Canon and Lethal Weapon
	Watership Down and
September 28	
	Bugs Bunny/Road Runner Movie
Fed Flicks	
September 16	D.O.A
September 23	The Princess Bride
Co-op Reminders	
September 19	Resumés due — Group I
September 20	Spring '88 work reports due
September 23	Want Ads available — Group I
September 26	Job Applications due — Group I
	Resumés due — Group II
September 30	Want Ads available — Group II
October 3	Job Applications due — Group II
MathSoc	200
September 19	Blood Donor Clinic Science Challenge
	at St. Jerome's Siegfried Hall
October 5	Annual General Meeting
	You are encouraged to sign up
	for office hours
Math Faculty	7 St 75/1 XW
September 23	Adding courses, changing sections, and
	dropping extra courses deadline
October 7	Course drop and withdrawal deadline
mathNEWS	
September 19	mathNEWS organisational meeting
September 26	production night, Issue #2
September 30	Issue #2 hits the bricks

# Math '89 Grads

Chair Chat

Hi there! This is Greg, your Grad '89 chairperson for this stream. Hard to believe, but in 8 (icck!) short months we'll be outta here. Before we leave our undergrad lives behind, I want to have the best Graduation ever.

Our friends in 8 stream have already started the Ball rolling this past summer. So my first announcement: March 18, 1989 — MATH GRAD BALL. We have to do our part as well. We're having a general meeting for everybody (you don't have to be graduating to help out, join in and get experience for your Grad year) interested in helping out this year. The meeting will be Tuesday, Sept. 20, somewhere in the Math building. Look for the posters that will be everywhere with more details.

Grad photo sessions are October 4 to October 12. For \$15.00, which you pay at the session, you get proofs, a composite and a yearbook photo. You can sign up for a session, as well as pay for your yearbook (a mere \$20) starting Sept. 21 to Sept. 28 from 11:30 - 1:30 outside the C&D on the 3rd floor of MC.

A final note, if you have any neat ideas or any questions, don't hesitate to talk to me. MGC now has an office (MC 3042 in the same hallway as MathSoc). Slip something underneath the door if I'm not in, or use the bulletin board in MathSoc with my name on it.

Hope to see ya on Tuesday.

#### Prez Sez

Welcome to the Fall '88 term! My name is Lisa Falco and I'm your returning MathSoc president for this term. I hope your first week back went well and the profs were kind!

The MathSoc office is a busy place these days (as usual). For those of you who don't know what MathSoc is or what 'MathSoc' stands for, 'MathSoc' is short for 'Math Society', of which every Math student is a member.

MathSoc does lots of things. First of all (the boring stuff), the function of the society is to represent the students at Faculty Council meetings, Fed meetings, Campus Centre board, SAC, etc. If you get involved in MathSoc, you can have more say in these types of matter. To get involved, nominations are now being accepted for various council positions until Tuesday September 20th at 4:30 pm. Election day is Wednesday September 28. If you would like to try something else to get involved, sign up for an office hour or come see me and we will see what we can do.

The other things that MathSoc does are:

- run the Math Coffee & Doughnut shop
- sponsor roadtrips, dances, bands, video nights, mathletics and MathOktoberfest (Thurs Oct 13 is Student night at Bingeman Park)
- provide quality photocopies, neat buttons, great t-shirts and sweats, old exams and midterms, free advice and smiles

Lockers will be assigned starting Monday September 19th at 9:30 am outside the MathSoc office (MC 3038). We are also selling tickets for Oktoberfest at Bingeman (Student night). It's a blast so don't miss it. There will be lots of other universities there!

The Coffee & Doughnut shop is open to serve you Monday to Friday from 8:00 am to 4:30 pm. The deals can't be beat and the food is good too! If you have any questions, don't hesitate to drop by the office!

Until the next issue,

Lisa

# The BLACK BOX

Dateline: Winter 87.

A big ape (engineer) ripped down the great BLACK BOX. Dateline: Summer 88.

Once again, the great BLACK BOX resides across from the comfy lounge for your convenience.

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Editor: (acting) Tom Vandeloo

# A Quickie

Ine eternal quest for the longest drive off the golf tee has resembled the superpower arms race in recent years. New, space age materials have been employed in the construction of the playing equipment. The equipment has been re-engineered to eke out the maximum performance, to 'push the design envelope', so to speak. I suppose this is a natural consequence when the participants of the game take it seriously (as in the arms race). However, a new development has reared its ugly head on this once-harmless (or mostly harmless) activity. Golf, like the arms race, has gone nuclear.

It seems that the good people at AECL (that's Atomic Energy of Canada, Limited) have discovered that irradiated golf balls tend to travel farther than normal. For a fee, you can have your set of golf balls irradiated. This development raises many questions, though:

- Are these balls easier to track in poor lighting conditions than ordinary balls?
- Do they cause a 'cloud chamber' effect when you hit one into a bank of dense fog?
- Can you use a Geiger counter to find your ball if it has landed in the rough?
- Will they make the greens greener?
- If you hit it with a 9-iron into a low-level cloud, will there be fallout?
- Has anybody noticed mushroom clouds over any golf courses?
- Do these balls fall under the new INF treaty? If not, are they then classified as long-range missiles?
- If you hit one really far, can it be construed by the Soviet earlywarning system as a threat, thus forcing them to launch a preemptive strike at us, thus forcing us to launch a retaliatory strike, which would result in total nuclear annihilation?
- Or am I just paranoid?

Enquiring minds want to know!

**CYBER**man

#### Top Ten Things to do at Fed Hall

- 10. Slam dance during the slow numbers.
- 9. Go up to the DJ and request Percy Faith or Frank Sinatra
- 8. Find people with lots of mousse in their hair and throw lit matches
- 7. Go geek hunting with beer caps (they're the ones sitting against the wall with the soda water)
- Go up to a bouncer, look at him closely and say "Well, it looks like Darwin was right."
- 5. See from how far back you can hit the urinal
- Buy up all the condoms with loonie slugs, and then watch the frustrated looks
- 3. Target vomiting from the upper level
- 2. Tell the frosh that the \$5 hookers are sitting "...over at that table."
- 1. Twelve ounce shooters (see #3)

#### The New Math

There is a disturbing tendency in Mathematics towards complexity. This article will suggest some means to return mathematics to the basic simplicity of the days of old (when knights were bold, and paper had not been invented, they'd drop their load, beside the road, and stroll off quite contented. But I digress). These ideas will contribute to the quality of life of Mathies everywhere.

- 1. Let  $\pi = 3$ : this will eliminate all kinds of tedious calculations.
- 2. Let e = 10: this will make the derivative of the log function so much easier.
- 3. Let i=1 to eliminate those silly-assed errors that occur whenever you try to get a computer to take the square root of a negative number. This will also immensely simplify complex analysis.
- 4. Let 0 = 1: this will eliminate division by zero errors.
- 5. Let  $\infty = 5$ : this will ensure that all loops terminate, and will make counting much easier.
- 6. Make all functions continuous. I mean, if god is so perfect, he should never have allowed discontinuous functions in the first place.
- 7. Let n = 1. Mathematical induction will be so much simpler.
- 8. Let  $\frac{a}{b} + \frac{c}{d} = \frac{a+b}{c+d}$ . This will eliminate that thankless job of trying to find the lowest common multiple.
- 9. Restrict all proofs to 5 lines or less.
- Ban C & O 230! (for those of you frosh who don't know what C & O stands for, it means 'Confusionatorics and Obfuscation')

CYBERman
The man without a pseudonym

#### Hockey Stories You're Likely to Hear in 1988-89

Rather than discuss the putatively disgusting efforts (or lack thereof) of the Toronto Blue Jays, let's turn our thoughts to something which will be more seasonal in a couple of weeks:

Oct. 8 — Rangers' GM Phil Esposito and Penguins' GM Tony Esposito swing a deal which involve trading one franchise for another. Fans express extreme puzzlement.

Nov. 12 — Minnesota's Dino Ciccarelli moons the entire Philadephia Spectrum after urinating on a concessioner. NHL President John Ziegler forces Ciccarelli to spend a week listening to Brian Williams' lecture on the degenerative nature of violence in sports.

Dec. 27 — Wayne Gretzky's career is effectively ended when Janet Jones announces that she wants to live in Malaysia.

Jan. 18 — A case of food poisoning hits the Pittsburgh Penguins' squad, forcing Mario Lemieux to play all six positions during a game against Vancouver. The Canucks win 4-3 in overtime.

Feb. 11 — Devils' coach Jim Schoenfield plays a practical joke on his ex-teammates in Buffalo by getting a court order forcing the entire team to play that evening's game wearing nothing but skates and helmets. John Ziegler, in Guyana on personal business, could not be reached for comment.

Mar. 25 — Harold Ballard's net worth increases by \$3.7 million when he coughs during a Leafs' game and slobbers on his shoes.

#### LookBehind

What Happened Last Term

Welcome back to all of you returning from summer jobs (or summer goofing-off) and a happy recovery to all the frosh. Here's a brief overview of what happened during the Summer '88 term.

A Busy Society

MathSoc was very busy socially last term with events varying from a free party for the frosh to a fun day at Bingeman to a Brunswick House pub at the Bombshelter. All the events (with one exception) were extremely successful and as a result, Pat and Tom were fired for not losing enough money.

mathNEWS in motion

In the great office shuffle (see article and map elsewhere in the issue), mathNEWS ended up in MC 3041, just down the hall from the MathSoc Exec office. The new office is much bigger (read: not at all) but we like it anyway. Its got posters and a stereo too.

IATEX is best

mathNEWS, in its last issue of the term, finally moved into the present and began to produce its issues with the typesetting language LATEX. This change made some things easier, some things harder, and drove the editorial staff completely bonkers.

Larry gets it again

Larry Smith, mathNEWS's favourite target, er, prof, was the proud recipient of the *Most Quotable Prof* award. In his acceptance speech, Larry thanked everyone from his mother to the WTW who promptly made an appearance in his class and soaked Rick McTavish, the therefore whom-we-liked-so-much-last-term.

# **Faculty of Mathematics**

Dean's Honours List

In recognition of outstanding academic achievement during the Spring 1988 term, the following students qualified for the Dean's Honours List.

Christine Anderson, Gavin Savin Benjamin, Michael Paul Bier, Debbie Lee Blake, Ruth Susan Bradford, David Bradley, Henri Brisson, Jacques Carette Jr., Wai Kiu Kanmy Chan, Paul Leslie Check, Ivy Cheng, Ken King Fai Choi, Glenn Chong, Ivor Chow, J. Daniel Christensen, Paul Arthur Colley, David Gary Cook, Nicholas Paul Crook, Michael Philip Dean. Edmund Andreas Dengler, Chris Laurent Denys, Terry Francis Dietrich. Dennis Charles Duplessis, Martin Rick Dunseith. Robyn Arlene Edelson, Stephen Robert Elliott, Valerie Elliott, Paul Kenneth Fryer, Paresh Gosai, Rene Stephen Gourley, Nancy Elizabeth Gray, David Greenspoon, Kenneth Anthony Griffin, Stephen Roger Grinyer, Todd Guy Hewlin, James Robert Hodge, Kathryn Elaine Hornby, Peter Minoru Huang, Shirley Irene Hunter, Michael Hutton, Adam Judson, Richard Harry Karsten, Mary Virvinia Kelly, Patricia Margaret Kinsella, Jeffrey Scott Kramer, Herbert Edward Kunze. Norbert Kusters, Michelle Catherine Lebreux, Christina Sunita Leslie, Ronald Sean MacDonald, Brian Robert Marshall, Michael bergin McAllister, Shawn Patrick McAllister, John McIntosh, Jeffrey James McKay, Eithne Murray, Sudarsan Subramania Narasimhan, Scott Patrick Orr. Christina Lee Piggott, Geoffrey John Pille, James Ross Randall, Daniel John Rogozynski. Christopher Taylor Sales, Katy Simonsen, Steven Chi Fung Siu. Bryan Alan Smyth, Herbert Peter Sutter, Robert Michael Swan. Bolidan Jan Taramina. Quynh Mai Tran, Jeffrey Paul Vansegbrook, Eric Hugh Veach, Gerry David Veenstra, Laura Patricia Weeks, David Paul Wenger, Peter Austin Williams, Deborah Suzanne Willison, Allan Richard 

# **ProfQuotes**

Yes, Another 'Best of'

Did you really think that we would have ProfQuotes for this term of make up an original column? Did you really think that we'd have any at all? Well, we didn't have any, so there! So, as you should have guessed, these are our picks as last term's best submissions. (OK, so there was a best of in the Frosh Issue; these are the next best.)

"...eventually you're going to have to say no. Girls, I want you to pay attention to this."

Honsberger C&O 230

"Feel free to ask questions at any time. Now where was I before you so rudely interrupted me?"

McKiernan MATH 140B

"Remember, people, don't let your pointers dangle."

Bennett CS132

"I have it a lot more than once in my dreams."

Chris Fader ECON 101K

"I haven't finished marking your midterms yet. I'm reading them backwards to find hidden messages from the devil."

Ross Willard PMath430A

"Every year, millions of people fail this course."

Rob Brown ACTSC 232

"I don't want to mislead you into believing that engineers actually think, but let's assume it."

S. Furino MATH 134B

# **Mathletics**

Anybody wishing to sign up for a Campus Rec team this term should check the lists on the windows outside the C&D. MathSoc is picking up the registration fee so sign yourself and a few of your friends up for your favourite sport.

# Free Strippers

Now that I've got your attention, I'd just like to mention that math-NEWS is once again cranking out issues at a horrendous rate (bviously). This time around we have plenty of staffers, much to my delight, but we're still short on creative juices. We need article writers around here and we need 'em bad. If you've ever sat in your Friday morning class and said to yourself, "I can write better than this!", then come out to a production night and prove it. Even if your writing experience is limited to signing rent cheques, any input you have will be greatly appreciated. 'Nuff said.

#### CSC Flash

Wait a minute, what is a CSC? I'm a frosh around here and all these TLAs have just got me climbing the walls! Fear not, because all may or may not be explained depending on the weather and the name of current husband of Liz Taylor.

space - n. sp-ay-s Continuous extension viewed with
 or without reference to the existence of
 objects within it.

Due to developments over the summer, the above term can finally be applied to the CSC office with some degree of accuracy. We are still working on the continuous part, but the extension is definitely complete. The CSC has finally fulfilled its manifest destiny through expansion into the space formerly occupied by mathNEWS. All those who never visited in the past because they could not fit in the office are especially encouraged to drop by.

The additional airspace in the CSC machine room means that the HP no longer serves as a furnace. Members will be able to access their accounts more often than ever before and work in a much more comfortable environment.

B

K

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nd

ng

ATTENTION: nominations for the fall term executive are now officially open! Come by the office and make your nominations as soon as possible. Elections will be held sometime next week. Watch for posters announcing the exact time and place.

Remember, membership has its privileges. These privileges include voting, access to the club library, and club systems. In addition there is the free tea always available in the office, a 10% discount on books purchased at Computer Book and Supply and the friendly atmosphere of our lounge. Finally, there is the personal satisfaction of belonging to one of the best organizations on campus. Interested? The cost is only a dollar, and the procedure is painless. Simply turn up at MC3037 some weekday afternoon and say "Please make me a Member!".

Currently, we are working on plans for various exciting events. We are thinking of going to the Canadian Computer Show and holding our famous Othello competition as well as inviting our normal dazzling array of speakers. (There may be some very important speakers this term — stay tuned for more details.) If you have any specific suggestions for meeting topics, please bring them to our attention right away.

That's about it for now. We leave you with one note of trivia, open to discussion in the CSC office anytime (just like most other topics in the known world).

Believe It Or Not: Cathode Ray Tubes were used as computer memory in hardware built by IBM.

Calum T. Dalek

#### mastHEAD

Considering that it's the first week of classes, we didn't do too bad I'd like to thank all those who gave up their time and helped out. They include, but are not limited to: Camille Goudeseune, Paul Sauvé, Andrew Tron, Angus Rogerson, Steve Green (and his tapes), Paul Obeda (and his pastries), Carolyn Duke, Edwin Hoogerbeets, Doug Hopkins, Brian Capstick (and his cheese), Mike Dean (and his appetite), Frank Letniowski, and Chris Fievoli (and his hamster, Neil). Thanks also to D. S. Little Caesar's, and Marion and the crew at Graphics Services.

Tom Vandeloo

# Jostens Canada Ltd. Math Grad Photos

Oct. 4 to Oct 12/88

8:30 AM to 4:30 PM

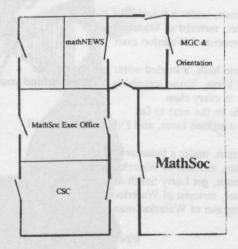
Math Grad Lounge - 5th floor MC.

MAKE APPOINTMENTS: Outside MC C&D shop Sept. 21 to Sept. 28, 11:30 AM to 1:30 PM \$15.00 sitting fee includes proofs, yearbook photo, and composite

#### We Have Moved

or, The Pink Tie Zone

Due to the movement of the CS grads to David World, MathSoc has been given more office space. This has resulted in the movement of mathNEWS from our old office to our present new, and better location, MC3041. The new state of MathSoc offices is shown on the following map.



# WTW Goes Underground

In recent months, the Water Terrorists of Waterloo have become increasingly popular, to the tune of eleven hits in the month of July alone. To reduce the risk of the exposure of members' identities, WTW has taken steps to eliminate any personal interaction with contractees.

To take out a contract on someone, all one has to do is fill out a copy of the WTW hit contract. These may be found in the WTW mailbox in the MathSoc office, MC3038. After completing and signing the forms, the contractee simply waits to be contacted by phone by a WTW member. At this time, the details of the hit are discussed and a fee is negotiated (standard fees are \$5 for a student and \$10 for a prof). If WTW decides to accept the contract, a method of payment is worked out. Note that payment is now required by 4:30 pm the day before the hit. If the hit is subsequently cancelled, WTW will gladly make arrangements for the full refund of the fee.

# Water Terrorist of

#### Waterloo Man

Sung to the tune of the Bon Jovi hit "Wanted Dead or Alive from the album "Slippery When Wet".

It's all a game, only the water supplies change Everyday, I wash someone away Another class, where the water seems so cold I'll connive all night To get them, I'd go all the way to Rome

I'm a hitman, under a balaclava I hide I'm a water, terrorist of Waterloo man Water, terrorist of Waterloo man

Sometimes I hit a creep, sometimes I get no praise
And people I beat get drenched in separate ways
Sometimes you lose your way
To the hit you're gonna make
And times when you're alone, you think of the money you'll take

I'm a hitman, under a balaclava I hide I'm a water, terrorist of Waterloo man Water, terrorist of Waterloo man

I'm a hitman, under a balaclava I hide I'm a water, terrorist of Waterloo man Water, terrorist of Waterloo man

I walk these halls, a loaded water gun by my side
I play for keeps, 'cause somebody hired me behind your back
I've been to every class
You might be the next to fall
I've seen a million faces, and I've soaked them all

I'm a hitman, under a balaclava I hide I'm a water, terrorist of Waterloo man I'm a hitman, got Larry Smith after my hide I'm a water, terrorist of Waterloo man Water, terrorist of Waterloo man

The Hitmen

#### ISNT 0325 - 1106

The Water Terrorists of Waterloo (WTW) is normally a ficticious bi-weekly harrassment organisation funded by and responsible to, but otherwise independent of, mathNEWS, which is funded by and responsible to, but otherwise independent of, the Mathematics Society at the University of Waterloo. Hits are the responsibility of the WTW member that is currently available to be found; however, any opinions expressed by victims are purely useless, as they were hit because they were useless in the first place, and are not necessarily those of MathSoc. mathNEWS, or the WTW. Send your hit-lists to WTW, MC3075, University of Waterloo, 200 University Ave.W., Waterloo, Ontario, Canada, N2I, 3G1 or to userid wtwo watwo on USELESS



#### Duh Flash

Ken We Get an Offis Too?

Now thet thu Watrloo Duh Clubb is of too a runnin start, wer going to wholed a member ship drive. Annywun caught drivin around the lawns around Campuss this weekind wil be givin a Member and a Ship. Weel also pay a Member Ship feee too the nasty plice people ho dont like yu doing that sort of thing.

With thu Grate Offise Shufle happeninng in the Math Bilding, weer gonna ask if they can giv us an oficce. We unnerstand that thu Compyuter Seance Club has some extra rume now they cant wait to give away, so look fur the Woterloo Duh Club aroun sumwere.

Were also lookin fer speakers this term. If you no of any speakers wil yoo pleas give them to us and we will speak to themm.

Duh.

# IATEX Reaches mathNEWS

Your Friday morning friend mathNEWS has again climbed the ladder of technological progress. This time, troff has been abandoned in favour of IATEX, a typesetting macro language developed by Leslie Lamport under TEX, the typesetting language developed by Donald Knuth.

A recent trend has developed of people changing from troff to the more versatile IATEX. IATEX has been developed for use on many operating systems, including many microcomputers such as the ATARI ST. Major advantages of the system include device-independent output, simplistic-but-powerful macro definition capability, and extensive mathematical typesetting capability. A specific advantage to mathNEWS is that we are now able to produce two column output, thereby reducing our imagen printing charges.

I hope that you enjoy the new look to mathNEWS. If you have any comments or suggestions for improvement, please let us know.

fletniowski

