The University of Waterloo’s Faculty of Mathematics is unparalleled in size and strength. It is home to the largest concentration of mathematics and computer science talent in the world with four distinct academic departments (applied mathematics, combinatorics and optimization, pure mathematics, and statistics and actuarial science) and the David R. Cheriton School of Computer Science. Each unit offers programs at the undergraduate, master’s, and doctoral level. With 6,370 students, 200 full-time professors, and over 500 courses in mathematics, statistics, and computer science, the faculty is a powerhouse of discovery and innovation.

**DEAN OF MATHEMATICS:** Ian Goulden  
**UNDERGRADUATE STUDENTS:** 5,741  
**DOCTORAL STUDENTS:** 285  
**MASTER’S STUDENTS:** 344  
**FACULTY MEMBERS:** 200  
**STAFF:** 110  
**ALUMNI:** 26,082 in 97 countries

**DEPARTMENTS AND SCHOOL**  
Applied Mathematics  
Combinatorics and Optimization  
Pure Mathematics  
Statistics and Actuarial Science  
David R. Cheriton School of Computer Science

“Waterloo is a special place. It’s a university that’s doing great work. In fact, it’s almost always in the top three universities in terms of the number of graduates we hire. Many of those have gone on to really incredible work, building software that now hundreds of millions of people are using.”

BILL GATES  
Founder of Microsoft, on his third visit to Waterloo

The Math Pink Tie was hung on the new Math 3 building for the first time to celebrate Convocation in June 2011.
HIGHLIGHTS AND FUNDRAISING PRIORITIES

The Faculty of Mathematics Campaign will enable us to grow as a world-class centre of excellence in the mathematical and computing sciences, increasing our capacity to take on some of the most pressing issues of our time. Over the next five years, our $100-million campaign aims to:

• create attractive, high-tech spaces for collaborative learning and discovery;
• expand the reach of our Centre of Education in Mathematics and Computing (CEMC);
• attract the brightest students from Canada and abroad by building our scholarship endowments;
• provide more opportunities for international exchanges and co-op placements through a new international initiatives endowment fund;
• enhance our research programs by building graduate student capacity; and
• build new areas of specialization by adding endowed research chairs.

EXCEPTIONAL PROFESSORS

A love of board games and a fascination with auctions has led KATE LARSON to a research career in computer science and game theory. Applications of her work range from designing online marketplaces to incentive-based computing.

Any investment has inherent risks. What is important is managing or mitigating risk exposure. KEN SENG TAN’s research focuses on providing innovative risk management solutions that help companies and investments remain sound over the long term.

Location-based services – using Global Positioning System (GPS) – can alert a cell phone user if a friend is nearby. The downside: the location of that friend is also known to a third party, the cell phone provider. URS HENGARTNER is developing cryptographic algorithms to create protocols for location privacy.

Waterloo was the first Canadian university selected to host one of the world’s most prestigious academic competitions, the International Olympiad in Informatics (IOI), held in August 2010. This annual week-long competition stars 400 of the world’s top high school computer science students from 100 countries.

A $12.5-million donation from the Bill & Melinda Gates Foundation is enabling our Centre for Education in Mathematics and Computing (CEMC) to expand its world-class outreach program to hundreds of thousands more youth and educators around the world.

Waterloo computer science professor Ming Li was honoured with the 2010 Killam Prize in Engineering.

Fourth year student Elyot Grant shared the 2010 Computing Research Association’s top prize for males, recognizing the best research done by undergraduates in North America.

24 prestigious Julie Payette – NSERC research scholarships were awarded across Canada in 2011. 5 to Waterloo Math students!