

Canada's Capital University

DISTINGUISHED LECTURE SERIES



Thomas C. Hales *University of Pittsburgh*

FOR A GENERAL AUDIENCE

Math Blunders and How To Do Without Them

Thursday, March 7, 2013 at 6:00 p.m. Reception to follow

ROOM TB 360, CARLETON UNIVERSITY

Does it ultimately matter whether we get math right or wrong? Do computers make math more trustworthy, or do they just add an extra layer of bugs? FOR A MATHEMATICAL AUDIENCE

Formal Proofs

Friday, March 8, 2013 at 3:30 p.m. *Coffee and tea will be served at 3:00 p.m.*

ROOM 4351 HP, CARLETON UNIVERSITY

A formal proof is a proof in which every single logical inference has been checked all the way back to the fundamental axioms of mathematics. Due to the large number of logical steps involved, formal proofs are generally carried out by computer. This talk will describe the general technology involved in formal proofs and will highlight some of the latest developments in this area. This talk will discuss an ongoing project called "Flyspeck" that aims to give a complete formal verification of the Kepler conjecture. (The Kepler conjecture asserts that the familiar cannonball arrangement of congruent balls gives the highest possible density.)

People have been making math blunders for as long as they have been doing math. This talk will describe some infamous blunders throughout history and what some of us are doing about it.



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