

Department of Mathematics and Computer Science  
Distinguished Invited Speaker Series

Date: Monday, April 11, 12:00 – 12:50 pm in C640

Ram Murty: The ABC Conjecture

Abstract: The ABC conjecture is a simple prediction about the prime factors of  $ABC$  for any non-zero integers  $A, B, C$  satisfying the equation  $A+B=C$ . It was first formulated by Masser and Oesterle in 1985. Its simplicity makes it very suitable to explain to undergraduates. Yet, it conceals a profound universe with Diophantine implications. We will survey the status of this conjecture, still unproved, and explore some surprising consequences as well as indicate approaches on how we hope to resolve it.

Biography: A leading scholar in the domain of algebraic and analytic number theory, Professor Murty is one of the world's outstanding experts on modular forms and elliptic curves. He is renowned for his ability to synthesize methods and ideas from different fields of number theory, offering insights which lead to striking new results.

Recipient of the Queen's University Prize for Excellence in Research, the university's top research prize, Professor Murty's achievements have been recognized through several national and international awards. He is a Fellow of the Royal Society of Canada and is the only Canadian mathematician who has been a double winner of Steacie and Killam Fellowships. He is one of an elite group of double winners of the Coxeter-James Lectureship (which recognizes young mathematicians who have made outstanding contributions to mathematical research) and the Jeffery-Williams Lectureship (the main prize awarded annually by the Canadian Mathematical Society, in recognition of leadership and outstanding research contributions in the field of mathematics).