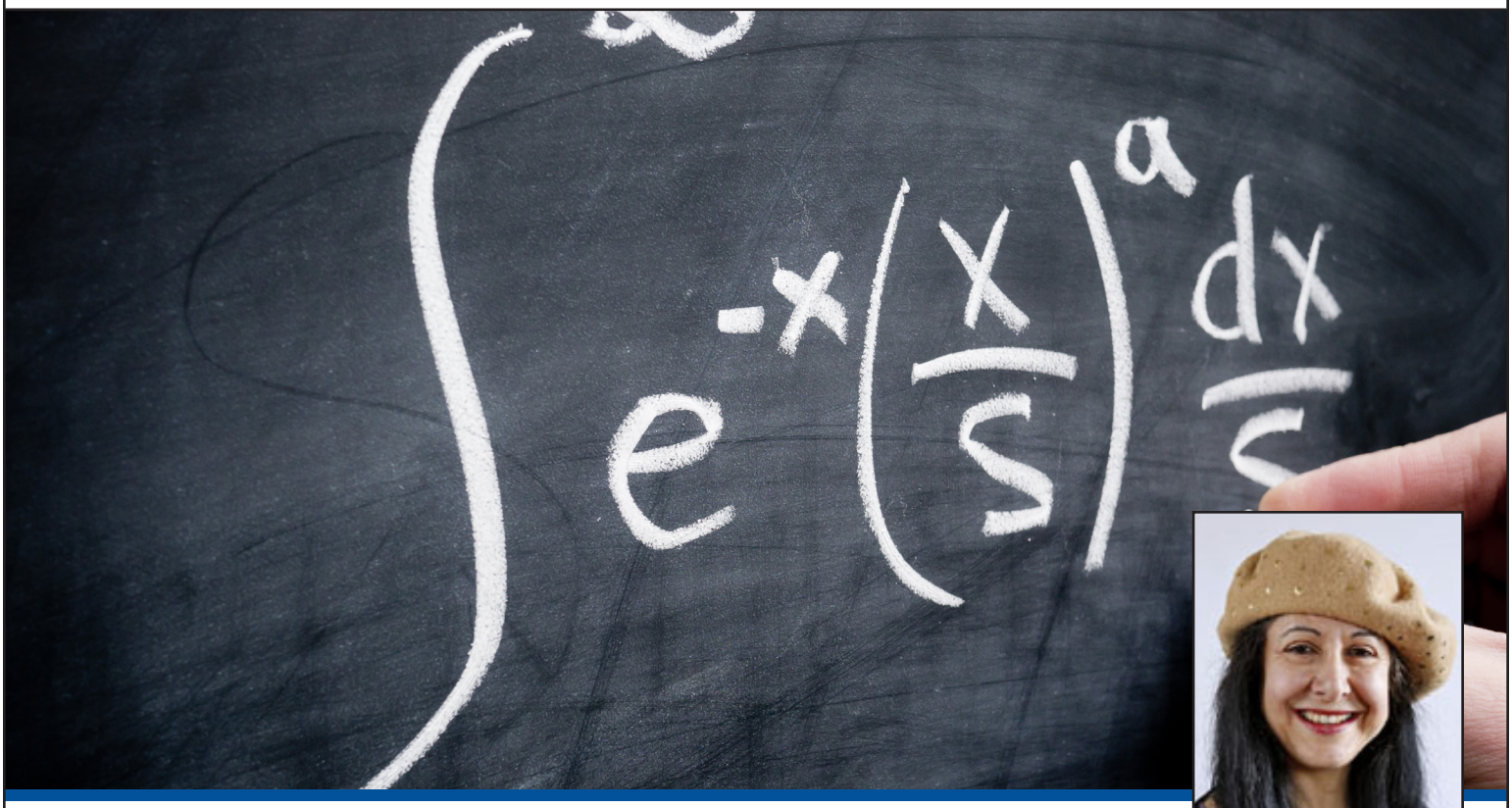
# PIMS Distinguished Visitor Series

University of Lethbridge



Join **Professor Fairouz Kamareddine**, Heriot-Watt University, School of Mathematical & Computer Sciences, as she explores

## Types and Functions since Principia and computerisation of Language and mathematics

Historically functions have been treated as a kind of meta-object. This all changed with the work of Frege, Russell and Church. Furthermore, the challenges of the paradoxes led to the formalisation of type theory by Russell. Since, functions and types have gone through a long process of evolution through various degrees of abstraction, construction and evaluation making both functions and types first class citizens as far away from meta-level as possible. In this talk, I argue that desirable properties of the historic lower order approach (decidability, easiness of calculations) can be maintained without losing the flexibility of the higher-order aspects. I argue that the low level approach is still worthwhile for many exact disciplines.

**Monday February 2, 2015 | 12:00-12:50 pm**
C640, University Hall, University of Lethbridge

Professor Kamareddine's academic career is at the interface of Mathematics, Logic and Computer Science where she has been involved in a number of worldwide consultancy assignments at various levels of institutions ranging from universities to the United Nations. She gained her PhD in Informatics from the University of Edinburgh in 1989. She has held academic and research positions in the Netherlands, France, and the UK as well as numerous visiting invitations to Japan and the USA.

Don't miss Professor Kamareddine's second talk on Thursday February 5th:
**Computerising Mathematical texts with MathLang**
Learn more at uleth.ca/artsci/event/64691

Pacific Institute for the Mathematical Sciences