



Department of Mathematical & Statistical Sciences



COLLOQUIUM

PIMS / AMI Seminar

"Orthogonal Polynomials and Asymptotic Methods"

Roderick S. C. Wong
City University of Hong Kong

Tuesday, April 2, 2019
3:30 Pm in CAB 657

Abstract

Orthogonal Polynomials is an important classical subject in mathematics, physics and engineering. One of the research topics in this area is to investigate the behaviours of these polynomials as their degree tends to infinity. In this talk, I will first recall some discrete and neo-classical orthogonal polynomials. Then I will briefly describe various asymptotic methods in differential equations that are available for applications. Finally, I will present a recent development in the asymptotic theory for second-order difference equations. The importance of this development is that orthogonal polynomials may not satisfy any differential equations, but they all satisfy a three-term recurrence relation, which is a second-order difference equation.

***For those attending the Colloquium,
a reception will be held at 4:30 pm in CAB 649.***