UNIVERSITY OF MACAU
FACULTY OF SCIENCE AND TECHNOLOGY
DEPARTMENT of MATHEMATICS

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"EIGEN-SOLUTIONS OF BICONFLUENT HEUN WITH RESPECT TO A COMPLEX WEIGHT"

by

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Date: 05/02/2010 (FRIDAY)
Time: 17:00 – 18:00
Venue: J311

Abstract

Heun equation has one more regular singular points in the complex plane than the Gauss hypergeometric equation. Many important linear equations arise from mathematical physics fall within the Heun class of equations. However, these equations are difficult to deal with, for many nice properties from the hypergeometric equations cannot be carried over. The Biconfluent Heun equation is a special case of the Heun equations, just like the confluent hypergeometric equations is a special case of the Heun equations. The Bessel equation is a specialization of the confluent hypergeometric equation. We show that the certain eigen-solutions of the Biconfluent Heun equation has certain properties mimic those of the Bessel equation in this talk. The talk will be kept at an introductory level so that only undergraduate mathematics is assumed.

ALL ARE WELCOME!