

1035-41-407

Roderick Wong* (rscwong@cityu.edu.hk), Office of the Vice-President (Research), City University of Hong Kong, 83 Tat Chee Avenue, Hong Kong, Kowloon, Peoples Rep of China. *A Turning-Point Theory for Second-Order Difference Equations.*

Not all orthogonal polynomials satisfy a second-order differential equation, but all orthogonal polynomials satisfy a three-term recurrence relation (i.e., a second-order difference equation). While there is a well-known turning-point theory for second-order differential equations, a corresponding theory for second-order difference equation was not developed until just recently. In this talk, we will present two results in this recent development. (Received September 06, 2007)