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香港浸會大學理學院
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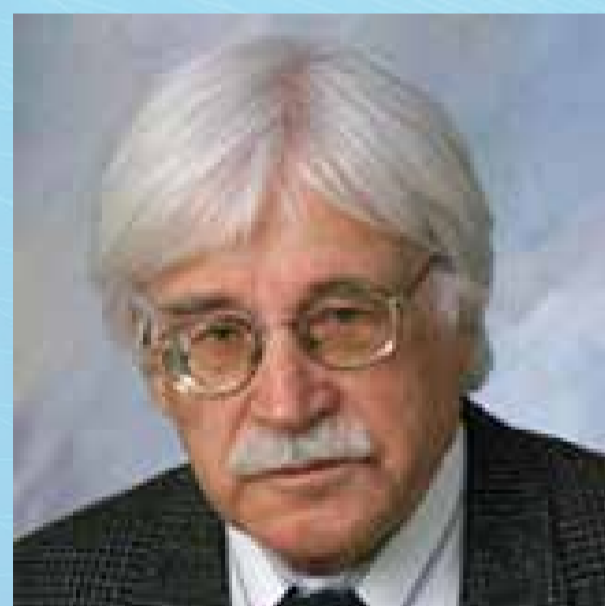**Department of Computer Science & Department of Mathematics**

Inaugural G.H. Golub Memorial Lecture

Numerical Quadrature:
A New Way of Dealing with nearby Singularities

5:00 - 6:00pm, March 17, 2014 (Monday)
WLB211, Wing Lung Bank Building, Shaw Campus, HKBU

Prof. Walter Gautschi
Professor Emeritus
Department of Computer Science
Purdue University, USA

Abstract

Numerical integration by Gaussian quadrature is considered in cases where poles, or other singularities, are located near the interval of integration. The manner of dealing withsuch singularities consists in suitably modifying Gaussian quadrature rules and the relatedorthogonal polynomials. Several examples are given, taken from quantum chemistry and solidstate physics.

Biography

Prof. Gautschi obtained his Ph.D. degree at the University of Basel under the famous Prof. A. Ostrowski. After working at Harvard, the National Bureau of Standards, and the Oak RidgeNational Laboratory, Gautschi joined Purdue University in 1963 as Professor of Computer Science and became Professor Emeritus in 2000. Prof. Gautschi was elected to the Bavarian Academy of Sciences and the Turin Academy of Sciences, both in 2001. His selected research works with commentaries were published in three volumes by Birkhäuser in 2014.

ALL INTERESTED ARE WELCOME
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