

國家理論科學研究中心數學組（臺北辦公室）

IAMS / NCTS-TPE Applied Math Seminar

Speaker: Tetsuya Sakurai (University of Tsukuba)

Title: Development of a moment-based parallel eigensolver and its applications

Abstract:

In this talk, we present a parallel eigensolver for large-scale interior eigenvalue problems. We have proposed a method for linear and nonlinear eigenvalue problems that uses complex moments obtained by contour integral. This method is called the SS method. We discuss a parallel implementation of the SS method to achieve good parallel scalability according to the hierarchical structure of the method. We also present a method for estimating eigenvalue counts in a given interval. Some numerical examples derived from vibration analysis and nano-materials simulations are shown.

Time: Sep. 26 (Fri.) 14:20 – 15:20

Venue: R202, Astro-Math Building (NTU Campus)

Organizer: Jenn-Nan Wang (NTU)

For more information, please refer to <http://www.cts.ntu.edu.tw/>,
or contact “cts_tpe@math.cts.ntu.edu.tw”