

# 2016 NCTS Workshop on Computational Mathematics for Young Researchers 計算數學薪傳及新苗研討會

**Date**  
**March 18-19, 2016**

**Venue**  
 **NCTU SA223**  
(交通大學 科學一館223室)

**Description**  
此會議的主要目的為邀請國內計算數學領域資深研究人員報告最新的研究議題，內容可以是目前正在進行的研究主題，亦或是國際上受到重視但國內尚待開發與努力的研究方向，提供計算數學年輕一輩參考，傳承經驗。另一方面，我們也邀請計算數學新進的研究人員(新苗)進行成果報告，讓大家了解他們的工作，提供交流合作的機會。歡迎大家與會，共襄盛舉！

March 18 (Friday)		
09:30-09:50	Registration and Opening	
09:50-10:20	Cheng-Sheng Chien 簡澄陸(CHU)	Continuation Methods for Numerical Solutions of Bose-Einstein Condensates
10:20-10:50	Wei-Fan Hu 胡偉帆(NCHU)	Vesicle electrohydrodynamic simulations by coupling immersed boundary and immersed interface method
10:50-11:10	Discussion and Coffee	
11:10-11:40	Wen-Hann Sheu 許文翰(NTU)	Some thoughts in Modeling and Simulation studies in Scientific Computing
11:40-12:10	Gi-Ren Liu 劉聚仁(NTHU)	Phase Retrieval with Random Illumination
12:10-14:00	Lunch	
14:00-14:30	Suh-Yuh Yang 楊肅煜(NCU)	A penalty immersed boundary method for fluid-structure interaction problems
14:30-15:00	Wei-Cheng Wang 王偉成(NTHU)	Regularized analytic extension on the upper half plane
15:00-15:20	Discussion and Coffee	
15:20-15:50	I-Liang Chern 陳宜良(NTU)	A Survey on Bose-Einstein Condensates-Computation and Analysis
15:50-16:20	Ching-Sung Liu 劉青松(NCTU)	A Global and Quadratic Iteration for Computing the Perron Pair of Nonnegative Tensors with Applications
16:30-17:00	Chen-Hui Hung 洪丞輝(CAFA)	Computing eigenmodes of elliptic operators using increasing flat radial basis functions
March 19 (Saturday)		
09:30-10:00	Yiming Li 李義明(NCTU)	Modeling of Random Dopant Fluctuation for Nanometer-Scale Field Effect Transistors
10:00-10:30	Min-Hsiung Lin 林敏雄(CCU)	Integer Matrix Approximation and Data Mining
10:30-10:50	Discussion and Coffee	
10:50-11:20	Tsung-Ming Huang 黃聰明(NTNU)	Eigenvalue solvers for three dimensional Maxwell equations
11:20-11:50	Yin-Liang Huang 黃印良(NUTN)	The Exact Far Field Boundary Condition for the Numerical Study of Flow Past a Sphere
11:50-13:30	Lunch	
13:30-14:00	Tzyy-Leng Homg 洪子倫(FCU)	Action Potential Propagation along a Myelinated Axon
14:00-14:30	Pengwen Chen 陳鵬文(NCHU)	A revisit to maximum variance unfolding from a viewpoint of phase retrieval
14:30-14:50	Discussion and Coffee	
14:50-15:20	Yueh-Cheng Kuo 郭岳承(NUK)	Structure-Preserving Flows of Symplectic Matrix Pairs
15:20-15:50	Chun-Yueh Chiang 蔣俊岳(NFU)	On a class of nonlinear matrix equations $X \pm A^{\small H} X^{-1} A = Q$
16:00-16:30	Wei-Shuo Su 蘇偉碩(NCTU)	Computing Large Deformation Diffeomorphic Metric Map in Image registration Using Discrete Green Function and 3D Image Reconstruction

**Organizers**  
林文偉(NCTU)、陳宜良(NTU)、賴明治(NCTU)、王偉仲(NTU)、楊肅煜(NCU)

主辦單位：國家理論科學研究中心數學組(NCTS)  
協辦單位：國立交通大學數學建模與科學計算研究中心(CMMSC, NCTU) / 台灣工業與應用數學會(TWSIAM)