

Program at a Glance																																	
Day 1 8 Dec (Mon)					Day 2 9 Dec (Tue)						Day 3 10 Dec (Wed)						Day 4 11 Dec (Thu)																
8:30 Registration and Morning Tea					9:00-9:45 Irene Fonseca <i>Variational Methods for Crystal Surface Instability</i>						9:00-9:45 Zhouping Xin <i>On Global Well-Posed-ness of The Multi-Dimensional Compressible Navier-Stokes Systems</i>						9:15-10:00 Tony Chan <i>Four Color Theorem for Image Segmentation</i>																
9:00-9:30 Opening Ceremony																																	
9:30-10:15 Philippe Ciarlet <i>Direct Computation of Stresses in Elasticity</i>																																	
10:15-10:30 Coffee Break					9:45-10:15 Coffee Break						9:45-10:15 Coffee Break						10:00-10:45 Thomas Y. Hou <i>Computing Multiscale Stochastic PDEs using Data-Driven Stochastic Basis</i>																
10:30-12:00					10:15-11:45			10:15-12:15			10:15-11:45		10:15-12:15																				
WLB201	WLB206	WLB104	WLB207	WLB202	WLB203	WLB201	WLB202	WLB206	WLB207	WLB104	WLB201	WLB202	WLB207	WLB104	WLB206	MS5 (Part II)			MS6 (Part III)	MS9 (Part IV)	MS10 (Part II)	MS11 (Part II)											
MS2 (Part I)	MS10 (Part I)	MS3 (Part I)	MS9 (Part I)	MS11 (Part I)	MS4 (Part II)	MS7 (Part I)	MS5 (Part I)	MS8 (Part I)	MS9 (Part II)	MS10 (Part II)	MS5 (Part II)	MS6 (Part III)	MS9 (Part III)	MS10 (Part IV)	MS11 (Part II)	G Grun	Y Wang	X Xu	Y Kim	Y Guo	C-T Wu	J Huang	T Wihler	J Sun	Y Ge	Y J Lee							
Y Chen	R Zhang	A Chertock	X Ji	X Xu	Q Wang	P Grohs	J Hu	J Liu	J Li	X Wu	W Ying	R Krause	X Liu	Q-J Meng	W Leng	Z Xie	Q Sheng	D Levy	B Jin	W Ying	Z Qiao	X Zhuang	J Chen	Y-N Young	Y Xu	S-Y Yang	L Wang	S Loisel	X Xu	Y Shih	S Zhang		
C Xu	G Hu	M Lukacova	S Leung	J Wang			X Xie	W Ying	D Challa	H-L Chern		S Wu	T Yin	Y-C Shu	L Zhong																		
12:30-14:00 Light Lunch					12:15-14:00 Light Lunch						12:15-14:00 Light Lunch						12:00-14:00 Light Lunch + Coffee Break																
14:00-14:45 Zhiming Chen <i>Recent Progress in Perfectly Matched Layer Methods</i>					14:00-14:45 Gitta Kutyniok <i>Compactly Supported Shearlets: Theory and Applications</i>						14:00-14:45 Raz Kupferman <i>Weizenbock Manifolds as a Homogenization Limit of Riemannian Manifolds with Defects</i>						14:00-14:45 Qiang Du <i>Asymptotically Compatible Discretizations and Their Applications</i>																
14:45-15:30 Weizhu Bao <i>Multiscale Methods and Analysis for the Nonlinear Klein-Gordon Equation in the Nonrelativistic Limit Regime</i>					14:45-15:30 Song Jiang <i>Analysis of the Rayleigh-Taylor Instability in Compressible Viscous Flows</i>						14:45-15:30 Siddhartha Mishra <i>Uncertainty Quantification for Measure Valued Solutions of Fluid Dynamics on Hybrid Architectures</i>						14:45-15:30 Fanghua Lin <i>Hydrodynamics of Complex Fluids</i>																
15:30-16:00 Coffee break					15:30-16:00 Coffee break						15:30-16:00 Coffee break						15:30-15:40 SCPDE Closing																
16:00-17:30					16:00-17:30			16:00-18:00			16:00-17:30			16:00-17:20																			
WLB104	WLB207	WLB206	WLB201	WLB202	WLB207	WLB104	WLB206	WLB201	WLB202	WLB203	WLB206	WLB207	WLB201	WLB104	WLB202	WLB203	MS1 (Part I)	MS2 (Part II)	MS4 (Part I)	Contributed (Part I)	Contributed (Part II)	MS4 (Part III)	MS10 (Part III)	MS8 (Part II)	Contributed (Part III)	Contributed (Part IV)	Contributed (Part V)	MS1 (Part II)	MS2 (Part III)	MS9 (Part IV)	MS10 (Part V)	Contributed (Part VI)	Contributed (Part VII)
A Ostermann	D Xu	J Shen	H Azizi	F Chen	X P Wang	J-T Huang	J-J Xu	Y Wang	R Zhang	S Cui	L Einkemmer	Y Yang	K Ren	H Sun	K S Chan	D Mothibi	Q Sheng	J Ma	O Lakkis	A R Adem	K B Amur	B Stinner	F-N Hwang	Z Tan	F Zeng	W Qiu	G Dutta	J Geiser	T Hou	B Xu	S W Vong	R Meher	B Muatjetjeja
	X Li	S Sun	Y Huang	M S H Chowdhury	H Zhang	S-L Lei	Y Seol	T Silva	H Gao	I Magdalena	E Hansen	Y Huang	W Chen	B Wade	Y He	G Rajchakit																	
			R K Pandey	K L Mahato				Y Tang	J Gong	C Liang					P Z Kamalia	M Banda																	
			C M Khaliq	S Kumar				R Abazari	K Manickam	D Ray																							
				Y Qi				J Geiser	Q Zhao	W Shen																							
18:30 Banquet																																	

Monday, 8 December 2014

9:00-9:30	<b>Opening Ceremony</b>				<u>WLB103</u>
9:30-10:15	<b>Plenary Session</b> Chair: Tao Tang 9:30-10:15 <b>Philippe Ciarlet</b> <i>Direct Computation of Stresses in Elasticity</i>				<u>WLB103</u> p. 4
10:15-10:30	Coffee Break				
10:30-12:00	<b>Parallel Sessions</b>				
	10:30-12:00 <u>WLB201</u> <b>MS2</b> <b>(Part I)</b> <i>High Order Numerical Methods for Integral Equations</i> Y Chen Z Xie C Xu pp. 14-17	<u>WLB206</u> <b>MS10</b> <b>(Part I)</b> <i>Recent Trends in the Analysis and Applications of Finite Difference Methods</i> R Zhang Y-Ge Q Sheng G Hu pp. 44-51	10:30-12:30 <u>WLB104</u> <b>MS3</b> <i>Mathematical Methods for Biological Systems</i> A Chertock D Levy M Lukacova-Medvidova A Kurganov pp. 18-20	<u>WLB207</u> <b>MS9</b> <b>(Part I)</b> <i>Analysis and Computation for PDE-Based Inverse Problems</i> X Ji B Jin S Leung Y-Ge P Li pp. 38-43	<u>WLB202</u> <b>MS11</b> <b>(Part I)</b> <i>Fast Solvers for Large-Scale Linear Systems from Partial Differential Equations</i> X Xu W Ying J Wang Y Xiao pp. 52-55
12:30-14:00	Light Lunch				<u>Platform of 3/F Academic &amp; Administration Building</u>
14:00-15:30	<b>Plenary Session</b> Chair: Hermann Brunner 14:00-14:45 <b>Zhiming Chen</b> <i>Recent Progress in Perfectly Matched Layer Methods</i> 14:45-15:30 <b>Weizhu Bao</b> <i>Multiscale Methods and Analysis for the Nonlinear Klein-Gordon Equation in the Nonrelativistic Limit Regime</i>				<u>WLB103</u> p. 3 p. 2
15:30-16:00	Coffee break				
16:00-18:00	<b>Parallel Sessions</b>				
	16:00-17:30 <u>WLB104</u> <b>MS1</b> <b>(Part I)</b> <i>Operator Splitting Methods for PDEs</i> A Ostermann Q Sheng X Wu pp. 10-13	<u>WLB207</u> <b>MS2</b> <b>(Part II)</b> <i>High Order Numerical Methods for Integral Equations</i> D Xu J Ma X Li pp. 14-17	<u>WLB206</u> <b>MS4</b> <b>(Part I)</b> <i>Numerical Method for Deterministic and Stochastic Phase Field Models</i> J Shen O Lakkis S Sun pp. 21-24	16:00-17:40 <u>WLB201</u> <b>Contributed Talks (Part I)</b> Chair: F Kwok H Azizi A R Adem M Banda Y Huang R K Pandey C M Khaliq pp. 57-73	16:00-18:00 <u>WLB202</u> <b>Contributed Talks (Part II)</b> Chair: H Liu F Chen K B Amur M S H Chowdhury K L Mahato S Kumar Y Qi pp. 57-73

Tuesday, 9 December 2014

9:00-9:45	<b>Plenary Session</b> Chair: Ming-Chih Lai 9:00-9:45 <b>Irene Fonseca</b> <i>Variational Methods for Crystal Surface Instability</i>					<u>WLB 103</u> p. 5
9:45-10:15	Coffee Break					
10:15-12:15	<b>Parallel Sessions</b>					
10:15-11:45	<u>WLB203</u> <b>MS4</b> <b>(Part II)</b> <i>Numerical Method for Deterministic and Stochastic Phase Field Models</i> G Grün Q Wang Z Qiao pp. 21-24	<u>WLB201</u> <b>MS7</b> <i>Applied Harmonic Analysis and Sparse Approximation</i> Y Wang P Grohs X Zhuang pp. 32-33	10:15-12:15 <u>WLB202</u> <b>MS5</b> <b>(Part I)</b> <i>Domain Decomposition Methods with Applications</i> X Xu J Hu J Chen X Xie pp. 25-28	<u>WLB206</u> <b>MS8</b> <b>(Part I)</b> <i>Interfacial Problems and Applications</i> Y Kim J Liu Y-N Young W Ying pp. 34-37	<u>WLB207</u> <b>MS9</b> <b>(Part II)</b> <i>Analysis and Computation for PDE-Based Inverse Problems</i> K-Ren Y Guo J Li Y Xu D Challa pp. 38-43	<u>WLB104</u> <b>MS10</b> <b>(Part II)</b> <i>Recent Trends in the Analysis and Applications of Finite Difference Methods</i> C-T Wu X Wu S-Y Yang I-L Chern pp. 44-51
12:15-14:00	Light Lunch					<u>Platform of 3/F Academic &amp; Administration Building</u>
14:00-15:30	<b>Plenary Session</b> Chair: Kun Xu 14:00-14:45 <b>Gitta Kutyniok</b> <i>Compactly Supported Shearlets: Theory and Applications</i> 14:45-15:30 <b>Song Jiang</b> <i>Analysis of the Rayleigh-Taylor Instability in Compressible Viscous Flows</i>					<u>WLB103</u> p. 7 p. 6
15:30-16:00	Coffee break					
16:00-18:00	<b>Parallel Sessions</b>					
16:00-17:30	<u>WLB207</u> <b>MS4</b> <b>(Part III)</b> <i>Numerical Method for Deterministic and Stochastic Phase Field Models</i> X P Wang B Stinner H Zhang pp. 21-24	<u>WLB104</u> <b>MS10</b> <b>(Part III)</b> <i>Recent Trends in the Analysis and Applications of Finite Difference Methods</i> J-T Huang F-N Hwang S-L Lei pp. 44-51	<u>WLB206</u> <b>MS8</b> <b>(Part II)</b> <i>Interfacial Problems and Applications</i> J-J Xu Z Tan Y Seol pp. 34-37	16:00-18:00 <u>WLB201</u> <b>Contributed Talks (Part III)</b> Chair: T Zeng Y Wang F Zeng T Silva Y Tang R Abazari J Geiser pp. 57-73	<u>WLB202</u> <b>Contributed Talks (Part IV)</b> Chair: Y Chan R Zhang W Qiu H Gao J Gong K Manickam Q Zhao pp. 57-73	<u>WLB203</u> <b>Contributed Talks (Part V)</b> Chair: Y Li S Cui G Dutta I Magdalena C Liang D Ray W Shen pp. 57-73

Wednesday, 10 December 2014

9:00-9:45	<b>Plenary Session</b> Chair: Xiaoping Wang 9:00-9:45 <b>Zhouping Xin</b> <i>On Global Well-Posed-ness of The Multi-Dimensional Compressible Navier-Stokes Systems</i>					<u>WLB103</u>  p. 8
9:45-10:15	Coffee Break					
10:15-12:15	<b>Parallel Sessions</b> 10:15-11:45                      10:15-12:15 <u>WLB201</u> <u>WLB202</u> <u>WLB207</u> <u>WLB104</u> <u>WLB206</u> <b>MS5</b> <b>MS6</b> <b>MS9</b> <b>MS10</b> <b>MS11</b> <b>(Part II)</b> <b>(Part III)</b> <b>(Part IV)</b> <b>(Part II)</b> <i>Domain Decomposition Methods with Applications</i> <i>Parallel and Adaptive Solution of Time-Dependent PDEs</i> <i>Analysis and Computation for PDE-Based Inverse Problems</i> <i>Recent Trends in the Analysis and Applications of Finite Difference Methods</i> <i>Fast Solvers for Large-Scale Linear Systems from Partial Differential Equations</i> D Yang                                      T Wihler                                      J Sun                                      Q Sheng Y Ge                                      Y J Lee J Huang                                      R Krause                                      X Liu                                      Q-J Meng                                      W Leng W Ying                                      S Loisel                                      X Xu                                      Y Shih                                      S Zhang L Wang                                      S Wu                                      T Yin                                      Y-C Shu                                      L Zhong  <div style="display: flex; justify-content: space-between;"> <span>pp. 25-28</span> <span>pp. 29-31</span> <span>pp. 38-43</span> <span>pp. 44-51</span> <span>pp. 52-55</span> </div>					
12:15-14:00	Light Lunch					Platform of 3/F Academic & Administration Building
14:00-15:30	<b>Plenary Session</b> Chair: Michael Ng 14:00-14:45 <b>Raz Kupferman</b> <i>Weizenbock Manifolds as a Homogenization Limit of Riemannian Manifolds with Defects</i> 14:45-15:30 <b>Siddhartha Mishra</b> <i>Uncertainty Quantification for Measure Valued Solutions of Fluid Dynamics on Hybrid Architectures</i>					<u>WLB103</u>  p. 6  p. 8
15:30-16:00	Coffee break					
16:00-17:30	<b>Parallel Sessions</b> 16:00-17:30 <u>WLB206</u> <u>WLB207</u> <u>WLB201</u> <u>WLB104</u> <u>WLB202</u> <u>WLB203</u> <b>MS1</b> <b>MS2</b> <b>MS9</b> <b>MS10</b> <b>Contributed</b> <b>Contributed</b> <b>(Part II)</b> <b>(Part III)</b> <b>(Part IV)</b> <b>(Part V)</b> <b>Talks (Part VI)</b> <b>Talks (Part VII)</b> <i>Operator Splitting Methods for PDEs</i> <i>High Order Numerical Methods for Integral Equations</i> <i>Analysis and Computation for PDE-Based Inverse Problems</i> <i>Recent Trends in the Analysis and Applications of Finite Difference Methods</i> L Einkemmer                                      Y Yang                                      P Li K Ren                                      H Sun                                      K S Chan                                      D Mothibi J Geiser                                      T Hou                                      B Xu                                      S W Vong                                      R Meher                                      B Muatjetjeja E Hansen                                      Y Huang                                      W Chen                                      B Wade                                      Y He                                      G Rajchakit  <div style="display: flex; justify-content: space-between;"> <span>pp. 10-13</span> <span>pp. 14-17</span> <span>pp. 38-43</span> <span>pp. 44-51</span> <span>pp. 57-73</span> <span>pp. 57-73</span> </div>					
18:30	Banquet					<u>Yau Yat Chuen Garden City Club</u>

Thursday, 11 December 2014

9:15-10:45	<b>Plenary Session</b> Chair: Pingwen Zhang 9:15-10:00 <b>Tony Chan</b> <i>Four Color Theorem for Image Segmentation</i> 10:00-10:45 <b>Thomas Y. Hou</b> <i>Computing Multiscale Stochastic PDEs using Data-Driven Stochastic Basis</i>	<u>WLB103</u>  p. 3  p. 5
10:45-11:15	Coffee Break	
11:15-12:00	<b>Plenary Session</b> Chair: Pingwen Zhang 11:15-12:00 <b>Selim Esedoglu</b> <i>A PDE-Based Approach to Non-Dominated Sorting</i>	<u>WLB103</u>  p. 5
12:00-14:00	Light Lunch Coffee Break	<u>Platform of 3/F Academic &amp; Administration Building</u>
	<b>Plenary Session</b> Chair: Tao Tang 14:00-14:45 <b>Qiang Du</b> <i>Asymptotically Compatible Discretizations and Their Applications</i> 14:45-15:30 <b>Fanghua Lin</b> <i>Hydrodynamics of Complex Fluids</i>	<u>WLB103</u>  p. 4  p. 7
15:30-15:40	SCPDE Closing	<u>WLB103</u>