

Programme of CWE 2018

Session Overview

Jun-18		19-Jun				20-Jun						
Monday		Tuesday				Wednesday						
		8:00	Registration Open				8:00	Registration Open				
		9:00	Hall #1				8:30	Hall #1				
			Opening					Keynote Speech				
		9:30	Keynote Speech, Hall #1					Hall #0	Hall #1	Hall #2	Hall #3	Hall #4
		10:20	Break				9:20	W10 Wind Hazard Assessments	W11 Model Development	W12 Bridge Aerodynamics	W13 Wind Energy and	W14 Wind Loading
			Hall #1	Hall #2	Hall #3	Hall #4	10:20	Break				
		10:50	T11 Bluff Body Aerodynamics	T12 Bridge Aerodynamics	T13 Wind Hazard Assessments	T14 Computational Wind Load Evaluation	10:50	W20* System Identification and Vibration Control of Structures under Dynamic	W21 Model Development	W22 Bridge Aerodynamics	W23 Wind Energy and Applications	W24 Wind Loading
		12:30	Lunch (The PARK restaurant)				12:30	Lunch (The PARK restaurant)				
		13:40	Keynote Speech, Hall #1				13:40	Keynote Speech, Hall #1				
		14:30	T21 Bluff Body Aerodynamics	T22 Bridge Aerodynamics	T23 Wind Hazard Assessments	T24 Computational Wind Load Evaluation	14:30	W30 Wind-Structure Interactions	W31 Model Development	W32* Best Practice Guidelines of LES	W33 Wind Energy and Applications	W34 Wind Loading
16:00	Registration Open	15:50	Break				15:50	Break				
		16:20	T31 Bluff Body Aerodynamics	T32 Bridge Aerodynamics	T33 Wind Hazard Assessments	T34 Computational Wind Load Evaluation	16:20	W41* Special Workshop Primer about Publishing Technical Papers in International Journals: Sharing an Editor's	W42* Best Practice Guidelines of LES	W43* Wind Energy	W44 Wind Loading	
17:00 - 18:30	Welcome Reception	18:00	End of Oral Presentation				17:40	End of Oral Presentation				
	Hall #1	18:30-21:00	IAWE Board Meeting (Members Only)									

21-Jun						22-Jun					
Thursday						Friday					
8:00	Registration Open					8:00	Registration Open				
8:30	Hall #1					8:30	Hall #1				
	Keynote Speech						Keynote Speech				
	Hall #0	Hall #1	Hall #2	Hall #3	Hall #4	Hall #1	Hall #2	Hall #3			
9:20	R10 Openfoam Workshop	R11 Model Development	R12 Computational Methods for Wind-Related Experiments	R13 Wind Environment	R14 Wind-Structure Interactions	9:20	F11* Applications of Optimization Methods in CWE	F12 Atmospheric & Pollutant Dispersion	F13 Micro & Meso-Scale Meteorology		
10:20	Break					10:20	Break				
10:50	R20 Openfoam Workshop	R21 Model Development	R22 Computational Methods for Wind-Related Experiments	R23 Wind Environment	R24 Wind-Structure Interactions	10:50	F21* Applications of Optimization Methods in CWE	F22 Atmospheric & Pollutant Dispersion	F23 Micro & Meso-Scale Meteorology		
12:30	Photo Session					12:30	Lunch (The Four Season restaurant)				
12:50-18:00	Field Trip					13:40	Keynote Speech, Hall #1				
						14:30	F31 Wind-Induced Human Comfort	F32 Indoor Air Quality and Ventilation			
18:30-21:00	Conference Dinner					16:10	Closing Hall #1				

* Special Sessions

Monday 18 June					
16:00	Registration Desk Open Lobby (1st Floor)				
17:00	Welcome Reception Starts Hall #1				
19:00	Welcome Reception Ends				
Tuesday 19 June					
8:00	Registration Desk Open Lobby (1st Floor)				
9:00	Official Opening of CWE 2018 Hall #1				
9:30	Keynote :	Ahsan Kareem , Univerisity of Notre Dame			
		Computational Wind Engineering: A Fusion of CFD, Stochastics, Machine Learning and Beyond (Ahsan Kareem, Fei Ding and Jiawei Wan)			
10:20 Break					
		T11 Bluff Body Aerodynamics	T12 Bridge Aerodynamics	T13 Wind Hazard Assessments	T14 Computational Wind Load Evaluation
Chair		Claudio Mannini	Le-Dong Zhu	Hee Jung Ham	Cheng-Hsin Chang & Girma Bitsuamlak
		Hall #1	Hall #2	Hall #3	Hall #4
10:50		J. Karthik / G Vinayagamurthy	Ke Li / Yaojun Ge / Yongxin Yang	Xiao-Wei Zheng / Hong-Nan Li / Chao Li	Edmundo Amaya- Gallardo / Adrian Pozos-Estrada / Roberto Gomez
		1. Influence of Vortex Generator Position in Flow over a Wind Turbine Blade	15. Mechanism Investigation of the Stabilizer Using Flutter Derivatives' Contribution Along the Bridge Deck'S Surface	29. Joint Probability Distribution of Wind Speed and Direction Based on Copula Functions	42. Numerical Simulation of Wind Loading on Curved-Roof Canopies
11:10		Chin Cheng Chou / Cheng Yang Chung / Tzu Liang Chen / Kung- Ming Chung	Le-Dong Zhu / Hong- Jie Zhang / Qing Zhu	Daniel Rhee / Franklin Lombardo / Guangzhao Chen	Zheng-Wei Zhang / Xin Sui / Zhi Zou / Alex To / Andrew Allsop
		2. Aerodynamic Analysis of the Overtaking of the Truck and the Passenger Vehicle	16. Time-Domain Flutter Analysis of a Cable- Stayed Bridge Scheme with a 1400M Main Span	30. Estimating Near Surface Tornadoic Wind Speed from Damage Patterns and an Idealized Tornado Model	43. Study on Wind Loading of Trees in the High-Rise Building with Vertical Forest
11:30		Feng Xu / Liqi Zhang / Yiqing Xiao / Zhongdong Duan / Jinping Ou	Ming Li / Yanguo Sun / Mingshui Li	Jaya Singh / Shuyang Cao / Hanquan Yuan / Jinxin Cao / Rongwei Zhou	Ivo Džijan / Aleksandar Pasic / Andrija Buljac / Hrvoje Kozmar

		3. Numerical Study on Suppressing Oscillating Wake of a Square Cylinder by Traveling Wave Wall	17. Experimental Studies on Flutter Performance and Countermeasures for a Long-Span Suspension Bridge with Steel Truss Stiffening Girder	31. Increase of High-Frequency Wind Speed Fluctuation Energy in Multi-Scale WRF Simulation of a Typhoon Process	44. Computational Modeling of Aerodynamic Loads on Two Race Cars at Various Distances
11:50		Yong Chul Kim / Yi-Chao Li	Jingmiao Shang / Qiang Zhou / Haili Liao	Fengbo Wu / Guoqing Huang / Hua He	Tsinuel Geleta / Ahmed Elshaer / Abiy Melaku / Girma Bitsuamlak
		4. Evaluation of Flow Field Characteristics around Solar Wing System Using CFD	18. Numerical Studies of the Dynamic Flow Interaction of a Twin-Box Bridge Deck with Different Gap-Widths	32. A Typhoon Wind Field Model and Its Application in Chinese Hazard Analysis	45. LES for Wind Load Evaluation on Low-Rise Houses with Complex Roofs
12:10		Christopher Ong / Byungik Chang / Maria-Isabel Carnasciali	Igor Kavrakov / Tommaso Argentini / Simone Omarini / Daniele Rocchi / Guido Morgenthal	Mohammadhossein Kashefzadeh / R. Panneer Selvam	Diana Kamaliyah Ichsan / Chung Feng Kuo / Yang Huang Chao / Weihan Weng
		5. Computational Validation of Aerodynamic Parameters of a Multi-Sided Cylinder	19. An Active Turbulence Generator Based on the Vortex Method for Simulation of a Complex Aerodynamic Admittance for Bridge Decks	33. Computer Modeling of Close-To-Ground Tornado Wind-Fields for Different Tornado Widths	46. Computational Fluid Dynamic Simulation of Flow around Solar Panels Array in the Ground
12:30 Lunch (Restaurant : The PARK, see the map)					
13:40	Keynote :	Takashi Nomura , Nihon University			
		Fluid-structure interaction approach to flying debris and evaluation of the impact force			
		T21 Bluff Body Aerodynamics	T22 Bridge Aerodynamics	T23 Wind Hazard Assessments	T24 Computational Wind Load Evaluation
Chair		Haohong Li	Ho-Kyung Kim	R. Panneer Selvam	Kenny Kwok
		Hall #1	Hall #2	Hall #3	Hall #4
14:30		Haeyoung Kim / Hiroshi Katsuchi / Hitoshi Yamada / Hoai Ho	Zhanbiao Zhang / Fuyou Xu	Shen Shuan Ryan Huo / Mark Sterling / Hassan Hemida	Yi-Chao Li / Jwo-Hua Chen / Cheng-Hsin Chang / Yuan-Lung Lo
		6. Effect of Reynolds Number on Aerodynamic Characteristics of Corner-Cut Bluff Bodies	20. Numerical Study on Aerodynamic Interference Effect on Flutter of Two Parallel Bridge Decks	34. Numerical Analysis of the Flow Structure of Tornado-Like Vortices Using Large Eddy Simulation	47. Large Eddy Simulation of Wind Loading on Roof-Top Solar Panel Array of a Low-Rise Factory Building in Open Terrain

14:50		Antonio Alvarez / Felix Nieto / Tung Nguyen / John Owen / Santiago Hernandez	Dabo Xin / Hongfu Zhang / Jinping Ou	Wooseok Yun / Hee Jung Ham / Seung Hun Choi / Sungsu Lee	Naifu Xu / Ali Tarokh
		7. 3D LES Simulations of a Static and Vertically Free-To-Oscillate 4:1 Rectangular Cylinder: Effect of the Spanwise Grid Resolution	21. Wake Control of Spanwise-Distributed Passive Vortex Generators on a Bridge Deck	35. Wind Risk Assessment for Building Cladding Considering Changes to Future Wind Speeds in South Korea	48. Analysis of Adding Flow Deflectors to Solar Arrays
15:10		Jinlin Xia / Gregory Kopp / Yaojun Ge	Zachary Taylor / Pierre-Olivier Dallaire	Giovanni Solari / Shi Zhang / Massimiliano Burlando / Qingshan Yang	Zhicheng Ouyang / Seymour Spence
		8. Modeling Unsteady Aerodynamic Effects of a Circular Cylinder in Unidirectional Oscillating Flow	22. Force Coefficients and Aerodynamic Derivatives for Two Bridge Sections: Comparison Between CFD and Experiment	36. Directional Decomposition and Properties of Thunderstorm Outflows Relevant to Wind Engineering	49. A Framework for the Probabilistic Performance Characterization of Building Envelopes of Wind-Excited Systems
15:30		Yingjie Li / Yong Yu / Kenny Kowk / Yu Zhang	Byeongcheol Kim / Kitae Park / Dong-Woo Seo / Kyusan Jung / Joonseok Park	Zhonghui Wu / Elsayed Abdelaal / Xing Ma / Yan Zhuge / Julie Mills	Tarak Nandi / Donghun Yeo
		9. Numerical Simulation of Unsteady Flow around the Silsoe Cube Using Lattice-Boltzmann Method and LES	23. Nonlinear Dynamic Analysis of Stay-Cable Using Computational Fluid Dynamics	37. A Comparative Study on the Difference of Radial Wind Speed Profiles Between Stationary and Travelling Downburst Models	50. Simulated Neutral ABL Flows for Structural Engineering Applications: Correlations and Integral Length Scales
15:50 Break					
		T31 Bluff Body Aerodynamics	T32 Bridge Aerodynamics	T33 Wind Hazard Assessments	T34 Computational Wind Load Evaluation
Chair		Santiago Hernandez	Mingshui Li	Giovanni solari	DongHun Yeo
		Hall #1	Hall #2	Hall #3	Hall #4
16:20		Claudio Mannini / Alessandro Mariotti / Maria Vittoria Salvetti	Qing Zhu / Le-Dong Zhu / Xun Zhang / Guangzhong Gao	Ga Young Kim / Sungsu Lee	Yasuaki Ito / Hidenori Kawai / Yuki Sakai / Tetsuro Tamura / Rahul Bale / Keiji Onishi / Makoto Tsubokura
		10. Experimental and Numerical Study on the Shear-Layer Instability in a 5:1 Benchmark Rectangular Cylinder	24. Prediction of Vortex-Induced and Post-Flutter Oscillations on a Twin-Side-Girder Bridge with a Unified Self-Excited Torque Model	38. Prediction of Extreme Wind by Stochastic Typhoon Model Considering Climate Change	51. Validation of Cladding Wind Load Evaluation of a Precisely Modelled High-Rise Building Using Large Eddy Simulation

16:40		Ruiheng Wu / Liangliang Zhang / Shaopeng Li / Bo Wu	Wen-Ming Zhang / Haoqing Zhang / Yaojun Ge	Shiyu Zhao / Lin Zhao / Yaojun Ge / Xu Chen / Jin Wang / Shuyang Cao	Takamasa Hasama / Toshihide Saka / Yoshiaki Itoh / Koji Kondo / Manabu Yamamoto / Tetsuro Tamura / Mitsuo Yokokawa
		11. Numerical Simulation on Aerodynamic Mitigation Measures of 3D Square Cylinder under All Wind Directions	25. Study on Nonlinear Aerodynamic Force and Nonlinear Vibration of Suspension Bridges	39. Fluctuating Pressure Characteristics of a Cooling Tower under Tornado-Like Vortex	52. Evaluation of Aerodynamic Instability for Building Using Fluid-Structure Interaction Analysis Combined with Multi-Degree of Freedom Structure Model
17:00		Seong-Wook Han / Ho-Kyung Kim / Jung Yong Park / Sangsup Ahn	Zhiyong Zhou / Baosong Jiang / Kangjian Yan / Chuanxin Hu	Minoru Noda / Yugiao Zhao / Masato Kawabata / Fumiaki Nagao	Tarak Nandi / Hannes Kröger / Donghun Yeo / Nikolai Kornev
		12. End-Treatment for Wind Pressure Reduction at the End of Noise Barriers	26. Aerodynamic Performance of Typical Box Girder Sections with Different Profile Parameters	40. Effects of Tornado Movement on Its Flow Fields	53. Assessment of a Synthetic Inflow Turbulence Generator for Prediction of Neutrally Stratified Atmospheric Flows
17:20		Cung Nguyen / John Macdonald / Stefano Cammelli	Roberto Gomez / Raul Sanchez / Adrian Pozos-Estrada	Tiantian Li / Guirong Yan / Fangping Yuan / Genda Chen	Xiaoye Yu / Goman Ho / Yuanlin Yu / Lynn Cheng
		13. The Role of the Orientation of Structural Axes on the Aeroelastic Responses of a Prismatic Cylinder	27. Numerical Simulation and Wind Tunnel Test of a Cable Stayed Bridge	41. Tornado-Induced Structural Responses on Large-Scale Dome Structures	54. Using Large Eddy Simulation for Preliminary Wind Study of Irregular Tall Buildings
17:40		Bo Wu / Shaopeng Li / Liangliang Zhang / Haohong Li	Qing Xia / Yongxin Yang / Yaojun Ge		Anant Gairola / Girma Bitsuamlak
		14. Numerical Investigation on the Pressure Admittance of a 5:1 Rectangular Cylinder Due to Sinusoidal Gusts	28. Vortex-Induced Vibration Performance and Aerodynamic Control Measures of a Cable Stayed Bridge with Semi-Open Separated Twin-Box Deck		54-1. Generic Numerical Tornado Model: Development and Application To Wind Load Evaluation
18:00 End of Oral Presentation for Tuesday					
18:30 IAWE Board Meeting (Invitees Only)					
Wednesday 20 June					
8:00	Registration Desk Open Lobby (1st Floor)				

8:30	Keynote :	Yukio Tamura , Chongqing University			
		Mathematical models for understanding phenomena and CFD applications (Yukio Tamura, Kunpeng Guo, Qingshan Yang, Bowen Yan)			
	W10 Wind Hazard Assessments	W11 Model Development	W12 Bridge Aerodynamics	W13 Wind Energy and Applications	W14 Wind Loading
Chair	Shuyang Cao	Yukio Tamura	Yaojun Ge	Chao Li	Bowen Yan
	Hall #0	Hall #1	Hall #2	Hall #3	Hall #4
9:20	Yi Zhao / Guirong Yan / Ming Zhao	Mengtao Han / Ryoza Ooka / Hideki Kikumoto	Yi Su / Mingshui Li	Costin Ioan Cosoiu / Elena-Alexandra Chiulan / Mircea Degeratu / Alexandru Vladut	Tianyou Tao / Hao Wang2 / Ahsan Kareem
	55. CFD Simulation of Full-Scale Multi-Subvortex Tornadoes	66. Comparison Between Lattice Boltzmann Method and Finite Volume Method for LES Approach in Outdoor Turbulent Flow	78. Integrated Transfer Function for Prediction of Buffeting Responses of Long-Span Bridges	93. Numerical Simulation of the Flow around a Wind Turbine Experimental Model	108. Simulation of Random Wind Field with Reduced Hermite Bi-Interpolation Assisted Technique
9:40	Zhi Li / Ryan Honerkamp / Guirong Yan	Qihong Cui / Daan Liang / James Yang	Hongfu Zhang / Dabo Xin / Jinping Ou	Abdolrahim Rezaeiha / Hamid Montazeri / Bert Blocken	Yumi Iida / Yasushi Uematsu
	56. Influence of a Community of Buildings on Tornadic Wind Field	67. Development and Validation of Numerical Model for Metal Roof System Subject to Debris Impact	79. 3D Wake Instability of a Bridge Model and Its Application in Wake Control at Low Reynolds Number	94. Numerical Simulations of Vertical Axis Wind Turbines Using Different Turbulence Models	109. Numerical Study of Wind Loads on Buildings Induced by Downbursts
10:00	Hyeyun Ku / Jun Ho Maeng / Kwangwoo Cho	Pasha Piroozmand / Jonas Allegrini / Gianluca Mussetti / Jan Carmeliet	Lei Zhou / Xuhui He / Haiquan Jing	Stuart Norris / Peter Richards / Laure Galley / C Durand	Aaron Jaffe / Gregory Kopp
	57. Climate Change Impact on Typhoon-Induced Surges and Wind Field in Coastal Region of South Korea	68. Heat Island Study with Coupled Regional Mesoscale (COSMO), Building Effect Parameterization (DCEP), and CFD Microscale (OPENFOAM) Models	80. Numerical Simulations and Experimental Validations on Aerodynamic Effect of Wind Barriers on Train-Bridge System	95. The Aerodynamic Interference of Yachts Crossing on Opposing Tacks	110. Analysis of Building Internal Pressures During Failure of a Flexible Wall Opening
10:20 Break					
	W20* System Identification and Vibration Control of Structures under Dynamic Wind Load	W21 Model Development	W22 Bridge Aerodynamics	W23 Wind Energy and Applications	W24 Wind Loading
Chair	Sang Hyun Lee	Ted Stathopoulos	Teng Wu	Xiaowei Deng	Daan Liang
	Hall #0	Hall #1	Hall #2	Hall #3	Hall #4

10:50	Seokjae Heo / Sanghyun Lee	Mohammadreza Shirzadi / Parham Mirzaei / Mohammad Naghashzadegan	Yanwen Su / Yongping Zeng / Xuan Wang	Guowei Qian / Takeshi Ishihara	Ryohei Nakamura / Tetsuro Taniguchi
	58. System Identification of Vision Sensor for Motion Tracking under Wind Load	69. Developing a Systematic Framework for Increasing the Accuracy of RANS Models for CFD Simulations of Atmospheric Boundary Layer	81. Buffeting Response of a Suspension Bridge under Non-Stationary Mountain Winds	96. Numerical Study of Wind Turbine Wakes over Complex Terrain by a Modified Delayed Detached Eddy Simulation	111. Study of the Three-Dimensional Fluctuating Pressure Field Above a Flat Plate Roof
11:10	Min-Jun Jeon / Sanghyun Lee	Zheng-Wei Zhang / Xin Sui / Zhi Zou	Lin Zhao / Xunan Yang / Jingjing Pan / Yaojun Ge	Gang Hu / Qi Jiang / Yiqing Xiao / K.T. Tse / Kenny Kwok	Mihail Iancovici / Ileana Calotescu
	59. System Identification of a 5-Story Structure	70. Effect of Inlet Flow Condition and Model Parameters on Typical Buildings in OPENFOAM	82. Strong Typhoon Hagupit (0814) Wind Environment and Its Dynamic Action on a Long-Span Bridge	97. Aerodynamic Characteristics of Square Cylinder with Wind Turbines at Corners	112. Tall Buildings Analysis and Design to Wind Loads: Time-Domain Approach vs. Code Provisions
11:30	Dae-Ho Mun/ Sanghyun Lee / Jae-Seung Hwang	George Chitaru / Matei Georgescu / Costin Ioan Cosoiu / Catalin Nea	Kyohei Noguchi / Yasuaki Ito / Tomomi Yagi	Clara Garcia-Sanchez / Anna Possner / Ken Caldeira	Yuki Takadate / Yasushi Uematsu
	60. Comparison of Modal Properties Using Ambient and Force Vibration Test	71. Numerical Study of a Particle-Laden Flow in a Harsh Environmental Testing Facility	83. Evaluation of Vortex-Induced Vibration Using Flutter Derivatives by Large Eddy Simulation	98. Analysis of Large Wind Farm Wakes with the Weather Research and Forecasting Model	113. Wind Loads and Unsteady Aerodynamic Forces on a Long-Span Membrane Structure
11:50	Ji-Eun Roh / Sanghyun Lee	Sydney Ryan / Robert Ripley	Fuyou Xu / Zhanbiao Zhang	Yu-Ting Wu	Wei Chen / Xianrong Qin / Zhigang Yang
	61. Design of a Multi-Action Hybrid Damper Using Equivalent Damping Ratio under Wind Loads	72. A Geometric Multigrid Method with Immersed Boundaries for Simulating Atmospheric Dispersion in Complex Urban Environments	84. Numerical Simulation of Air-Induced Added Mass and Damping of Vibrating Bridge Deck Sections under Zero Wind Speed Condition	99. Power Output Efficiency in Large Wind Farms with Different Hub Position and Different Incoming Flow Conditions	114. Wind Pressure Height Coefficient for Mast of a Tower Crane
12:10	Chang-Yun Pak / Sanghyun Lee / Jae-Seung Hwang / Yonghun Lee	Hitoshi Suto / Yasuo Hattori / Keisuke Nakao	Saang Bum Kim / Seung-Woo Lee / Jongho Moon	Hamid Montazeri / Bert Blocken	
	62. The Optimal Design of Tuned Mass Damper with Viscous and Friction Damping	73. Spatial Development of a Boundary Layer with High-Intensity Inlet Turbulence Generated by PID Control and Linear Forcing	85. Wind Response Analysis of a Bridge Cable to Evaluate the Performance of a Stockbridge Damper	100. Convective Heat Transfer Coefficients at Windward Building Facades: CFD Simulations and New Generalized Expressions	
12:30 Lunch (Restaurant : The PARK, see the map)					
13:40	Keynote :	Ho-Kyung Kim , Seoul National University			

		What we have learned from observation of vortex-induced vibration in two parallel cable-stayed bridges			
	W30 Wind-Structure Interactions	W31 Model Development	W32* Best Practice Guidelines of LES	W33 Wind Energy and Applications	W34 Wind Loading
Chair	You-Lin Xu	Yasushi Uematsu	Yoshihide Tominaga	Hamid Montazeri	Zachary Taylor
	Hall #0	Hall #1	Hall #2	Hall #3	Hall #4
14:30	Arindam Chowdhury / Ioannis Zisis / Amal Elawady / Maryam Refan / Peter Irwin	Andrei-Mugur Georgescu / Elena- Alexandra Chiulan / Costin Ioan Cosoiu / Mircea Degeratu	Tsubasa Okaze / Hideki Kikumoto / Yoshihide Tominaga	Yi-Xin Peng / You-Lin Xu / Song-Ye Zhu / Chao Li	Hye-Jin Ryu / Young- Cheol Ha
	63. Large-Scale Experimentation Using the Wall of Wind Experimental Facility to Assess Wind and Rain Impacts on Buildings and Infrastructure Systems	74. Inlet Velocity Boundary Conditions for Computational Wind Engineering Simulations	86. Toward AJ Guidelines of Pedestrian Wind Environment around Buildings for Practical Applications of Large-Eddy Simulation: Introduction of Benchmark Cases and Sensitivity of Inflow Turbulence	101. High-Solidity Straight-Bladed Vertical Axis Wind Turbine: Numerical Simulation and Validation	115. The Comparison of Wind Loads on Building According to Wind Load Evaluation Methods
14:50	Tian Li / Takeshi Ishihara / Qingshan Yang	Bogdan Doroftei / Alexandru Vladut / Andrei-Mugur Georgescu / Mircea Degeratu	Hideki Kikumoto / Tsubasa Okaze / Yoshihide Tominaga	Yu-Hsuan Juan / Hamid Montazeri / Bert Blocken / An-Shik Yang	Shuai Shao / Yuji Tian / Qingshan Yang / Ted Stathopoulos
	64. Vibration-Induced Unsteady Aerodynamic Force of Long-Span Flat Roof and Its Application	75. Large Eddy Simulation of a Back Facing Expansion Step	87. Statistical Uncertainty in Results of Large-Eddy Simulation of Flow around an Isolated Building Model	102. Numerical Analysis of Urban Wind Power Potential Between High- Rise Buildings: Impact of Building Orientations	116. Wind Force Distribution in L- and T- Shaped Low-Rise Buildings with 4:12- Sloped Hip Roofs
15:10	Hao Wang / Shitang Ke / Tongguang Wang / Yaojun Ge / Rongkuan Zhu	Peter Richards / Stuart Norris	Hiroki Ono / Takeshi Kishida / Tsubasa Okaze / Hideki Kikumoto / Masashi Imano / Yoshihide Tominaga	Kun Yang / Xiaowei Deng / Wing Lam Chan	Robert Ong / Donghun Yeo / Jian Zhong / Esmaeel Eftekharian / Yaping He / Kenny Kwok
	65. Comparison of Anti- Wind Safety Performance and Dynamic Property of Cooling Tower under Different Four-Tower Arrangements	76. Appropriate Boundary Conditions: Still an Issue After 25 Years	88. Grid Dependency with Various Grid Systems on Large-Eddy Simulations of Flow around an Isolated Building Model	103. Integrated Design Framework of Next- Generation 80-M Wind Turbine Blade: Modelling, Aeroelasticity and Optimization	117. CFD Modelling of Unsteady Wind-Flow and Wind-Blown Flame around the Silsoe Cube
15:30		Mihael Cindori / Franjo Juretić / Ivo Džijan / Hrvoje Kozmar	Naoki Ikegaya / Tsubasa Okaze / Hideki Kikumoto / Masashi Imano / Hiroki Ono / Yoshihide Tominaga		Yuki Sakai / Yasuaki Ito / Tsuyoshi Nozu / Tetsuro Tamura / Hidenori Kawai

		77. Computational Approach to Steady RANS Simulations of the Homogeneous Neutrally-Stratified Atmospheric Boundary Layer	89. Effect of Advection Scheme for Large-Eddy Simulation on Turbulent Flow Fields around an Isolated Block Model		118. LES for Cladding Wind Pressure Evaluation of High-Rise Buildings with Precisely Modeled Surrounding Buildings
15:50 Break					
		W41* Special Workshop	W42* Best Practice Guidelines of LES	W43* Wind Energy	W44 Wind Loading
Chair		Ted Stathopoulos	Yoshihide Tominaga	Hyun-Goo Kim	Hidenori Kawai
		Hall #1	Hall #2	Hall #3	Hall #4
16:20		Ted Stathopoulos	Takeshi Kishida / Yuichi Tabata / Tsubasa Okaze / Koichi Miyashita / Ryuichiro Yoshie	Hyun-Goo Kim / Jin-Young Kim / Yong-Heack Kang	Takashi Takeuchi / Naohiro Takeuchi / Junji Maeda / Yong Chul Kim
		Special Workshop : Primer about Publishing Technical Papers in International Journals: Sharing an Editor's Experience	90. Large-Eddy Simulations of Pedestrian Wind Environment Within Simplified and Complex Urban Geometries	104. Wind Sector Classification Using KIER-Windmap	119. Effects of Wind Direction on Local Wind Force and Wind Response of a Building under Short-Rise-Time Gusts
16:40			Thanh Pham / Joerg Franke	Jin-Young Kim / Chang Ki Kim / Hyun-Goo Kim / Yong-Heack Kang	Yong Cao / Hidenori Kawai / Tetsuro Tamura / Rahul Bale / Keiji Onishi / Makoto Tsubokura
			91. Towards Comprehensive Validation of Large Eddy Simulation with the Michelstadt Case	105. Analysis of Vertical Wind Veering Using Lidar Data and KIER-Windmap in Korea	120. Flow Topology and Surface Pressure on a Wall-Mounted Square Cylinder
17:00			Keisuke Nakao / Tsubasa Okaze / Hideki Kikumoto / Yoshihide Tominaga	Jung-Tae Lee / Jin-Young Kim / Hyun-Goo Kim / Yong-Heack Kang	Hidenori Kawai / Tetsuro Tamura / Maiko Arai / Hiroki Sayama / Takayuki Yamaguchi / Keisuke Yoshie
			92. Prediction Performance of Large-Eddy Simulations for the Mean Pressure Coefficient on an Isolated Building Surface	106. Hub Height Optimization Using KIER-Wind Map	121. Turbulence and Pressure Fluctuation around High-Rise Building with Complicated Facade in Urban Districts
17:20				Boyoung Kim / Chang-Yeol Yun / Yong-Heack Kang / Hyun-Goo Kim	
				107. Optimal Siting of Lidar in Complex Terrain Using CFD and KIER-Windmap	

17:40 End of Oral Presentation for Wednesday					
Thursday 21 June					
8:00	Registration Desk Open CWE office (1st Floor)				
8:30	Keynote :	Yaojun Ge , Tongji University			
		2D and 3D nonlinear numerical simulation of cable-supported bridge aerodynamics, aeroelasticity and their coupling			
	R10 Openfoam Workshop	R11 Model Development	R12 Computational Methods for Wind- Related Experiments	R13 Wind Environment	R14 Wind-Structure Interactions
Chair	Jae Ryul Shin	Ahsan Kareem	Shenghong Huang	Yoshihide Tominaga	Yuan-Lung Lo
	Hall #0	Hall #1	Hall #2	Hall #3	Hall #4
9:20	Hyun Sik Kim	Yin Luo / Hongjun Liu / Huili Xue / Kun Lin	Stefano Capra / Stefano Cammelli / Damien Roeder / Jakub Knir	Bowen Yan / Qiao Yan / Qiusheng Li / Zhenru Shu	Qingliang Zhan / Zhiyong Zhou / Yaojun Ge
	OpenFOAM Basic Course 1 (60 min)	122. Comparison of Inflow Generation Methods for LES Simulation of Wind Flow around a High-Rise Building	130. Numerically Simulated Wind Loading on a High-Rise Structure and Its Correlation with Experimental Wind Tunnel Testing	137. Study on Influence of Building Shape and Building Layout on Pedestrian Wind Environment around Group of High-Rise Buildings	145. A New Moving Frame Algorithm for Coupled Translating and Rotating Fluid-Structure Interaction Problems
9:40		Joerg Franke / Thanh Pham	Jorge Sousa / Yunjae Hwang / Catherine Gorle	Chengdong Feng / Ming Gu	Yuan-Lung Lo / Yi-Chao Li / Yong Chul Kim
		123. Validation of Very Large Eddy Simulation of Very Rough ABL Wind Tunnel Flow	131. Combining Urban Flow Predictions with Field Data Assimilation: Experimental Validation	138. Study on Self- Sustainable Atmospheric Boundary Layer Considering Wind Veering with Height Based on RANS	146. Interference Effects of High-Rise Building Based on Idealized CFD Simulation
10:00		Shenghong Huang / Guowang Zhu / Yitian Yu	Hang Bai / Wenjuan Lou / Zhiyong Duan / Rong Bian	Xu Cheng / Guoqing Huang / Liuli Peng / Mingshui Li	Ziad Azzi / Amal Elawady / Manuel Matus / Ioannis Zisis / Peter Irwin
		124. Large Eddy Simulation in Wind Engineering under High Reynolds Number Conditions	132. Hybrid Simulation of Three-Dimensional Fluctuating Wind Field along Transmission Lines in Mountainous Area	139. Wind Tunnel Contraction -Based Transition Curve for Modeling Mountainous Deep-Cutting Valley Terrain	147. Large-Scale Aero- Elastic and Full-Scale Testing at the 12-Fan Wall of Wind to Investigate the Performance of Span Wire Traffic Signals
10:20 Break					

	R20 Openfoam Workshop	R21 Model Development	R22 Computational Methods for Wind- Related Experiments	R23 Wind Environment	R24 Wind-Structure Interactions
Chair	Jae Ryul Shin	Jonas Allegrini	Robert Ong & Hee Jung Ham	Dong-Woo Seo	Takashi Nomura
	Hall #0	Hall #1	Hall #2	Hall #3	Hall #4
10:50	Jae Ryul Shin	Weiliang Zhu / Zhiyong Zhou / Yaojun Ge	Esmaeel Eftekharian / Maryam Ghodrat / Robert Ong / Yaping He / Kenny Kwok	Yoshihide Tominaga	Tian Zhang / Weiwei Guo / Nan Zhang / Shaoqin Wang
	Application Fields of OpenFOAM	125. A New Dynamic Mesh Method for Structure-Fluid Interaction Simulation	133. Numerical Investigation of Fire Intensity Effects on Fire Wind Enhancement	140. CFD Simulations of Flow around Windbreak Fences with Various Porosities: a Validation Study	148. Counter Measures Study on Car Swaying on the Bridge Induced by Sudden Change of Wind Load with Wind
11:10	Hyun Sik Kim	Massimiliano Burlando / Daniele D'Agostino / Cecilia De Vecchi / Giovanni Solari	Teng Wu / Wei Song	Jianhan Yu / Ted Stathopoulos / Mingshui Li	Wei-Chu Chuang / Seymour Spence
	OpenFOAM Basic Course 2 (60 min)	126. The THUNDERR Portal: a Science Gateway to Share Thunderstorm Outflow Research Advances	134. Real-Time Aerodynamics Hybrid Simulation: Wind-Induced Effects on Reduced-Scale Buildings Equipped with Full-Scale Dampers	141. Estimating Exposure Roughness Based on Google Earth	149. Inelastic Response Characterization of Wind-Excited Structures Within the Setting of Probabilistic Performance-Based Design
11:30		R. Panneer Selvam / Arindam Chowdhury / Peter Irwin	Guowang Zhu / Shenghong Huang	Yirong Chen / Zhiwen Liu / Yabing Xin / Zhengqing Chen	Mingfeng Huang / Yifan Wang / Xuantao Sun / Wenjuan Lou
		127. CFD Performance for Different Wind Engineering Problems	135. High-Order Large-Eddy Simulation of Turbulent Wind Flow Field and Wind Loads	142. Numerical Simulation of Downburst Wind Field in Virtual Boundary Layer Wind Tunnel	150. Numerical Predictions of Wind-Induced Responses of a Long-Span Roof Structure
11:50		Jiawei Wan / Ahsan Kareem / Haili Liao	Haohong Li / Bo Wu / Liangliang Zhang / Yang Yang	Ruijun Zhang / Parham Mirzaei / Benjamin Jones / Mohammadreza Shirzadi	Seungho Lee / Soon-Duck Kwon
		128. The Solution of the Incompressible Navier-Stokes Equations Discretized By Finite Volume Method Using the Dirk Schemes with the PISO Algorithm	136. Investigation on the VIV Performances of Wide Flat Box Girders Based on Wind Tunnel Tests and Numerical Simulations	143. Investigation of Neighbourhood Effect on Performance of Cross-Ventilated Buildings Using Dynamic Coupling of CFD and BES	151. Triboelectric Energy Harvesting from Flutter
12:10		Geunwoo Oh / Kyung Min Noh / Jung-Il Choi		Jonas Allegrini	Alexander Michalski / A. Degro / R. Zarfam / E. Haug

		129. Extended Synthetic-Eddy Method Generating Thermal Turbulent Inflow Data Generation for Spatially-Developing Boundary Layer		144. Effectiveness of Different Urban Heat Island Mitigation Measures Evaluated with a Model Solving for Air Flow, Radiation and Heat and Moisture Transport in Urban Materials	152. Added Mass and Added Damping Effects of Wide-Span Membrane Structures Using Fluid-Structure Interaction Simulations
12:30 End of Oral Presentation for Thursday					
12:30 Photo Session (see the map) You may pick up the LUNCH BOX at the photo session					
12:50-18:00 Field Trip (Registered Attendees Only) 12:50 : buses will leave from the parking lot in front of AVENUE Building 18:00 (approx.) : buses will return to the K-hotel					
18:30 Conference Dinner (Registered Attendees Only) At Geomungo Hall (see the map)					
Friday 22 June					
8:00	Registration Desk Open CWE office (1st Floor)				
8:30	Keynote :	Chongam Kim , Seoul National University			
		High-order methods as a computational framework applicable to computational wind engineering			
		F11* Applications of Optimization Methods in CWE	F12 Atmospheric & Pollutant Dispersion	F13 Micro & Meso-Scale Meteorology	
Chair		Santiago Hernandez & Seymour Spence	Qiang Zhou	Naoki Ikegaya	
		Hall #1	Hall #2	Hall #3	
9:20		Miguel Cid Montoya / Santiago Hernandez / Felix Nieto / Jose Jurado	Almerindo Ferreira / Rosário Fino / Thomas Thiis / Antonio Lopes / Antonio Sousa	Jinghan Wang / Chao Li / Yiqing Xiao / Kai Xiao / Ming Nie	
		153. Shape Optimization of Single Box Bridge Decks Considering Gravitational Loads and Aeroelastic Phenomena Related to Laminar and Turbulent Wind	164. On the Modeling of Wind Erosion Threshold of Piles in Tandem	176. Adapted Near Ground Drags for Simulating the Neutral Equilibrium Atmospheric Boundary Layer Based on the Sst K-W Model	
9:40		Felix Nieto / Santiago Hernandez / Miguel Cid Montoya	Bharathi Boppana / Daniel Wise / Chin Chun Ooi / Edward Zhmayev / Hee Joo Poh / Liming Wang / Huiqing Wu / Jiang Zheng	Chao Li / Lingwei Chen / Yiqing Xiao	

		154. Reduced Basis Approach for the Shape Optimization of the Cross-Section of Tall Buildings	165. A CFD Study on Particulate Matter Filters Systems in Urban Areas	177. Consistency and Efficiency Improved Random Flow Generation Method for Large Eddy Simulation of Atmospheric Boundary Layer	
10:00		Ibuki Kusano/Miguel Cid Montoya/Aitor Baldomir/Felix Nieto/José Jurado/Santiago Hernandez	Jooyong Lee / Sungsu Lee / Hyun A Son	Zihan Zhao / Chao Li / Yiqing Xiao / Kai Xiao / Ming Nie	
		155. Reliability Based Design Optimization for Single Box Deck Shape and Plate Thicknesses of Suspension Bridges under Flutter Constraint	166. Application of Gaussian Puff Diffusion to Lagrangian Based Particle Dispersion Model	178. A Comparative Study for Downscaling Simulations of Wind Field over Complex Terrain from Mesoscale-Nwp to Microscale-CFD	
10:20 Break					
		F21* Applications of Optimization Methods in CWE	F22 Atmospheric & Pollutant Dispersion	F23 Micro & Meso-Scale Meteorology	
Chair		Santiago Hernandez & Seymour Spence	Yong Chul Kim	Massimiliano Burlando	
		Hall #1	Hall #2	Hall #3	
10:50		Fei Ding / Ahsan Kareem	Meïssam Bahlali / Eric Dupont / Bertrand Carissimo	Alessio Ricci / Massimiliano Burlando / Maria Pia Repetto	
		156. Sequential Surrogate Modeling for Aerodynamic Shape Tailoring of Tall Buildings Using Multi-Fidelity CFD Simulations	167. Atmospheric Pollutant Dispersion Modeling in Realistic Non-Homogeneous Flows Using Both a CFD Eulerian RANS and a Lagrangian PDF Methods	179. Application of CFD and Mass-Consistent Models for Operational Wind Forecasting	
11:10		Fei Ding / Ahsan Kareem	Taishi Kawaminami / Naoki Ikegaya / Aya Hagishima / Jun Tanimoto	Yifan Wang / Mingfeng Huang / Wenjuan Lou	
		157. Inflow and Model-Form Uncertainty Quantification in CFD-Enabled Aerodynamic Shape Optimization	168. Statistical Characteristics of Air Flow and Scalar Concentration Within Simplified Urban Array	180. The Height-Dependent Wind Profiles of Typhoon over the Coastal Complex Terrain	
11:30		Arthriya Suksuwan / Seymour Spence	Dongjin Cui / Gang Hu / Lei Yuan / Kenny Kwok / Jianlin Liu	Haotian Dong / Shuyang Cao / Tetsuya Takemi / Yaojun Ge / Weituo Wang	

		158. Optimal Performance-Based Design of Wind-Excited Dynamic and Uncertain Multi-Story Systems Subject to Constraints on Expected Loss	169. CFD Simulation on Traffic Emissions Dispersion in a High-Density Transit-Oriented Development (Tod) Urban Area	181. High-Resolution WRF Simulation and Wind Profile Analysis of Arctic Surface Wind	
11:50		Tao Li / Teng Wu / Wen-Ming Zhang / Zhao Liu	Ziad Boutanios / Hrvoje Jasak		
		158-1. Simulation of Nonlinear Structural Aerodynamics Based on Deep LSTM Networks	170. Two-Way Coupled Euler-Euler Simulations of Particle-Laden Flows		
12:10		Tibebu Birhane / Girma Bitsuamlak / Peter King			
		158-2. A Two-Tier Computational Framework for Aerodynamic Shape			
12:30 Lunch (Restaurant : Four Season, see the map)					
13:40	Keynote :	Giovanni Solari , University of Genoa			
		Experimental and numerical tools for assessing the wind loading of structures due to thunderstorm outflows			
		F31 Wind-Induced Human Comfort	F32 Indoor Air Quality and Ventilation		
Chair		Jae-Seung Hwang	Soon-Duck Kwon		
		Hall #1	Hall #2		
14:30		Dong-Hyeon Shin / Young-Cheol Ha	Keqin Yan / Dejan Mumovic / Vivian Dorivas		
		159. Evaluation Method of Serviceability for Buildings Considering Wind Directional Frequency	171. Field Measurements of Indoor Air Quality and Ventilation of a Classroom with a Passive Ventilation System with Heat Recovery		
14:50		Ruth Shilston / Ender Ozkan / Daniel Hackett	Chen Chen / Catherine Gorlé		
		160. Development of the City of London Wind Assessment Guidelines	172. Validating Computational Predictions of Natural Ventilation in Stanford'S Y2E2 Building		

15:10		Min Young Park / Houi Gab Jeong / Dong-Hun Han / Soon-Duck Kwon	Yunjae Hwang / Rosemond Ho / Catherine Gorle		
		161. A Protocols for Firefighters' Activities under Strong Winds	173. Predictive Simulations for Improving Natural Ventilation to Decrease Respiratory Illness in Slums of Dhaka, Bangladesh.		
15:30		Leonidas Tschritzis / Marialena Nikolopoulou	Chia-Ren Chu / Ting-Wei Lan / Chih-Kai Yang		
		162. Human Wind Comfort Evaluation for the Context of London	174. Wind-Driven Ventilation in Monoslope Greenhouses		
15:50		Seunghoon Shin / Wonbin Park / Donghyeon Seol / Hongjin Kim	Meseret Kahsay / Girma Bitsuamlak / Fitsum Tariku		
		163. Vision-Based Displacement Measurement for Various Target Shooting	175. The Effect of Building Geometry on Its Convective Heat Transfer Rate		
16:10 End of Oral Presentation for Friday					
16:10 Conference Closing Hall #1					

Poster Presentation

Yitian Yu / Shenghong Huang	P-1. Numerical Simulation on Interaction of Bluff Body with Tornado Like Vortex
Peng Qin / Zhiyong Zhou	P-2. Aerodynamic Forces and Flow Structures of a Thin Flat Plate at High Incidences by URANS
Zhiyong Zhou / Demu Huang / Chuanxin Hu / Peng Qin	P-3. The Effect of Slotting Ratios to the Aerostatic and Flutter Stability for a 2×1500M Stayed-Cable Bridge
Christopher Ong / Byungik Chang / Ostap Lisowitch / Maria-Isabel Carnasciali	P-4. Computational Fluid Dynamics of Cylindrical Bluff-Bodies
Hyun A Son / Sungsu Lee / Kyukwan Hwang	P-5. Application of CFD to Assessment of Ventilation Efficiency in a Pig Farm
Xiang Sun / Jinsoo Park / Jung-Il Choi / Gwang Hoon Rhee	P-6. A Study of the Combined Effect of Wind and Buoyancy Forces on Windward Single-Sided Ventilation

Naseem Abbas / Rahim Dad / Habib Ullah / Muzamil Hussain / Hassaan Ahmad	P-7. Fatigue Life Prediction of Tidal Current Turbine Using Fluid Structure Interaction (FSI)
Dong-Woo Seo / Ga Young Kim / Byeongcheol Kim / Kitae Park	P-8. Assessment of the Stability of a Vehicle by Cross Winds While Driving on a Cable-Supported Bridge
Xiaobo Wu / Chong Zhang / Zhenqing Liu / Xin An	P-9. Numerical Simulation of Wind Field on Complex Terrain Based on Coupling WRF and CFD
Young Tae Lee / Hee Chang Lim	P-10. Study on the Inflow Generation Having the Different Length Scale
Chuanxin Hu / Zhiyong Zhou / Peng Qin / Kangjian Yan / Baosong Jiang	P-11. Research on Effects of Closed Type Grilles on Wind-Induced Stability of a Cable-Stayed Bridge with a Twin-Box Cross Section
Chao-Yang Huang / Han-Qing Liao / Pi-Yang Cheng	P-12. The Wind-Structure Interaction Analysis of Single-Axis PV Tracking System
Jooyong Lee / Sungsu Lee / Hyun A Son	P-13. Scenario Based Hazard Assessment to Rare Events Such as Volcanic Ash Dispersion
Yasuyuki Ishida / Issei Takada / Akashi Mochida / Tsubasa Okaze	P-14. LES on the Relationship Between Geometric Parameters of Buildings and Pedestrian-Level Wind Velocity in the Built-Up Areas
Yiming Li / Guangchong Wang / Guangzhong Gao / Jiawu Li	P-15. Comparison of Flutter Derivatives of Π -Type Bridge Section Identified Via Numerical Simulation Based on Three Turbulence Models and Wind Tunnel Test
Congmin Guo / Guangzhong Gao / Xiangyu Gai / Feng Wang / Hua Bai	P-16. Numerical Investigation on the Effectiveness of Aerodynamic Measures Based on Pressure Distribution for Coupled Flutter of a Closed-Box Bridge Section
Xiangyu Gai / Guangzhong Gao / Congmin Guo / Jialing Song / Jiawu Li	P-17. Amplitude-Threshold Evaluation of Long-Span Bridges under Post-Flutter LCO Using Pushover Analysis