

Program of IASS/APCS 2022																	
Date/ Time	8:30	8:45	9:00	9:15	9:30	9:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30
Mon, 19 Sep.	Registration of Participants in Beijing Friendship Hotel														Lunch		
	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:05	18:15	18:30
	Co Chairs: Ruy Pauletti & Jinzhi Wu			Chair: Ken'ichi Kawaguchi		Coffee Break 30 minutes		Co Chairs: Makoto Ohsaki & Mike Xie							Welcome reception		
	Conference Opening - BJUT President welcome, IASS President Welcome, Conf. Chair Welcome	IASS TAC Chair Address: Sigrid Adriaenssens		Awards Conferrals: Torroja Medal; IASS Honorary Membership x 2; Tsuboi Prize(s) x 2; Hangai Prize(s) x 4; Message from Mrs. Hangai				Plenary Lecture 1 Su-Duo Xue: Cable-supported Structures Recently Built in China		Plenary Lecture 2 John Chilton:My Journey through Spatial Structures		Plenary Lecture 3 Yeong-Bin Yang: Invariant Isogeometric For mulation for Buckling Analysis of Spatial Curved Kirchhoff Rods		Hangai Prize Lecture 1 Yao Lu: A Method for Designing Multi-layer Sheet-Based Lightweight Funicular Structures			

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Tue, 20 Sep.	Co Chairs: Su-duo Xue, Seung-Jae Lee & Tetsuo Yamashita						Coffee Break 30 minutes		Co Chairs: Toru Takeuchi & Jingyao Zhang										
	Plenary Lecture 4 (APCS) Yuanwen OuYang: Research on Key Technology and its Application in Large-span Aluminium Spatial Structures		Plenary Lecture 5 (APCS) Ken'ichi Kawaguchi: History and Present of Early Reinforced Concrete Shell Domes in Japan		Plenary Lecture 6 (APCS) Jat Yuen Richard Liew: Design, Fabrication and Erection of Long Span Spatial Steel Structures				Plenary Lecture 7 (APCS) Kok Keong Choong: Saloma Link Footbridge - A New Iconic Footbridge in Kuala Lumpur, Malaysia		Plenary Lecture 8 (APCS) Feng Fan: New Progress of Research on Roof Snow Load for Long-span Structures		Plenary Lecture 9 (APCS) Guoxing Lu: Impact Behaviour of Origami Structures and Materials		Plenary Lecture 10 (APCS) Seung-Jae Lee: Development Quantum-based Q-HS Algorithm for Weight Optimization of Truss Structures		Lunch		
	14:30	14:45	15:00	15:15	15:30	15:50	16:00	16:20	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30		
	Co Chairs: Carlos Lázaro & Alireza Behenejad																		
	Plenary Lecture 11 Sergio Pellegrino: Inventing Giant Lightweight Structures		Plenary Lecture 12 Jieming Ding: Mechanics and Aesthetics in the Structural Design of Long-span Pedestrian Bridges		Plenary Lecture 13 Sigrid Adriaenssens: Geometry, Mechanics and Building Forms		Hangai Prize Lecture 2 Kanata Warisaya: Freeform Auxetic Mechanisms Based on Corner Connected Tiles	Coffee Break 25 minutes		Parallel Sessions: S01~S06 S01: Projects and material of tension & membrane structures (WG6-1) S02: Realized Metal Projects (WG8-1) S03: Concepts for Sustainable Innovation in Construction of Timber and Bio-based Spatial Structures -1 (WG 12-1) S04: Computational methods for spatial structures and collapse (WG 13-1) S05: Sustainable Heritage: Challenges and Strategies in the Preservation and Conservation of 20th Century Historic Concrete Shells-1 (WG17/WG5-1) S06: Aluminum Alloy Structure- 1							Dinner		
	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45	23:00	23:15					
	Parallel Sessions: S07~S12 S07: Masts and Towers (WG4) S08: ETFE Film Applications (WG6-2) S09: Buckling of Metal Spatial Structures - 1 (WG8-2) S10: Concepts for Sustainable Innovation in Construction of Timber and Bio-based Spatial Structures -1 (WG 12-2) S11: Optimisation Methods (WG 13-2) S12: Advanced Manufacturing and Materials, 3D-Printing and Molding-1 (WG21-1)						Coffee Break 15 minutes		Parallel Sessions: S13~S18 S13: Retractable and Other Tension Structures (WG6-3) S14: Connection Design of Metal Spatial Structures (WG8-3) S15: Concepts for Sustainable Innovation in Construction of Timber and Bio-based Spatial Structures -3 (WG 12-3) S16: Advanced Manufacturing and Materials, 3D-Printing and Molding-2 (WG21-2) S17: Innovation in New Concepts and Projects -1 S18: Disaster Prevention and Mitigation of Spatial Structures-1										

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Wed, 21 Sep.	Parallel Sessions: S19~S23 S19: Dynamic Performance and Seismic Response of Metal Spatial Structures -1 (APCS, WG8-4) S20: Cable structures (WG6-4) S21: Designing Structures with Computational Methods (WG13-3) S22: Form-Mobility Relationship: the Study of the Interdependency of Structural Geometry and Transformability (WSG15-1) S23: Life-Cycle Design and Assessment of Shell and Spatial Structures (WG18)						Coffee Break 30 minutes		Parallel Sessions: S24~S28 S24: Pneumatic Structures-1 (APCS, WG6-5) S25: Mechanical Properties and Health Monitoring of Metal Structures (WG8-5) S26: Optimisation, Form Finding and Parametric Design (WG15-2) S27: Snow and Ice Engineering (WG21-3) S28: Aluminum Alloy Structures - 2						Lunch		
	14:30	14:45	15:00	15:15	15:30	15:50	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30
	Co Chairs: Qilin Zhang & M. Mollaert																
	Plenary Lecture 14 Zhongyi Zhu: Roof Cable Structure Design of Lusail Stadium (the Main Venue of FIFA World Cup Qatar 2022)			Plenary Lecture 15 Stefan Lehnert: Latest Applications of the ETFE Technology Perils and Opportunities		Hangai Prize Lecture 3 Jiaming Ma: PrintNervi – Design and Construction of a Ribbed Floor System in the Digital Era	Coffee Break 25 minutes		Parallel Sessions: S29~S34 S29:Future Challenges in the Design and Construction of Shell Structures for Low or Zero Carbon - 1 (WG5-1) S30: Pneumatic Structures-2 (WG6-6) S31: Buckling of Metal Spatial Structures - 2 (WG8-6) S32: Computational Methods for Additive Manufacturing and Origami (WG13-4) S33: Prototyping: Physical and Virtual Model Making and Fabrication (WG15-3) S34: Teaching of Shell and Spatial Structures facilitating Innovation, Sustainability and Legacy (WG20)						Dinner		
	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45	23:00	23:15			
	Parallel Sessions: S35~S40 S35: Mechanical Behavior of Tension Structures (WG6-7) S36: Dynamic Performance and Seismic Response of Metal Spatial Structures -2 (WG8-7) S37: Computational Methods for Shell Design and Geometrical Methods (WG13-5) S38: Geometry: Describing and Controlling (complex) Geometry, Including Parametric Design (WG15-4) S39: Sustainable Heritage: Challenges and Strategies in the Preservation and Conservation of 20th Century Historic Concrete Shells-2 (WG17/WG5-2) S40: Innovation in New Concepts and Projects - 2						Coffee Break 15 minutes		Parallel Sessions: S41~S45 S41: Tensegrity Structures (WG6-8) S42: Graphical Methods and Funicular Structural Design (WG13-6) S43 :Form-Force Relationship: The Study of the Interdependency of Structural Geometry and Mechanical or Kinetic Behaviour (WG15-5) S44: Sustainable Heritage: Challenges and Strategies in the Preservation and Conservation of 20th Century Historic Concrete Shells-3 (WG17/WG5-3) S45: Disaster Prevention and Mitigation of Spatial Structures-2								

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Thu, 22 Sep.	Technical tour [National speed skating oval]														Lunch		
	14:30	14:45	15:00	15:15	15:30	15:45	15:55	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30
					Co Chairs: Su-duo Xue & Ken'ichi Kawaguchi												
	Parallel Sessions: S46~S51 S46: Future Challenges in the Design and Construction of Shell Structures for Low or Zero Carbon - 2 (WG5-2) S47: Dynamic Behavior of Tension & Membrane Structures (WG6-9) S48: Dynamic Performance and Seismic Response of Metal Spatial Structures -3 (WG8-8) S49: Concepts for Sustainable Innovation in Construction of Timber and Bio-based Spatial Structures -4 (WG12-4) S50: Computational Methods for Membranes and Tensegrity (WG13-7) S51: Innovation in New Concepts and Projects - 3				Coffee Break 25minutes	Hangai Prize Lecture 4 Kazuki Hayashi: Assembly Sequence Optimization of Spatial Trusses Using Graph Embedding and Reinforcement Learning	Plenary Lecture 16 Fang Zheng: Integral Design of Form, Structure & Environment for China National Speed Skating Oval	Plenary Lecture 17 Mike Xie: Generalized Topology Optimization for Architectural Design	Plenary Lecture 18 Carlos Lázaro: Lightweight Structures with Fiber-reinforced Concrete	IASS Future Events	IASS/APCS 2022 -Summing Up Conference Closing	Farewell dinner					