



## About PSSC

# PSSC

The Pacific Structural Steel Conference has been successfully held for twelve times since it was founded in 1986. The details are as following.

Times	Countries	Hosts
PSSC1986	New Zealand	New Zealand Heavy Engineering Research Association(HERA)
PSSC1989	Australia	Australian Steel Institute(ASI)
PSSC1992	Japan	Japanese Society of Steel Construction(JSSC)
PSSC1995	Singapore	Singapore Structural Steel Society(SSSS)
PSSC1998	Korea	Korean Society of Steel Construction(KSSC)
PSSC2001	China	China Steel Construction Society(CSCS)
PSSC2004	America	American Institute of Steel Construction(AISC)
PSSC2007	New Zealand	Steel Construction New Zealand(SCNZ)
PSSC2010	China	China Steel Construction Society(CSCS)
PSSC2013	Singapore	Singapore Structural Steel Society(SSSS)
PSSC2016	China	China Steel Construction Society(CSCS)
PSSC2019	Japan	Japanese Society of Steel Construction(JSSC)

### Organizer

China Steel Construction Society

#### Co-sponsors

Assembled Building Industry Association of Sichuan  
 China MCC5 Group Co., Ltd.  
 China 19th Metallurgical Group Co., Ltd.  
 Hebei Jinxi Iron and Steel Group Co., Ltd.  
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 CITIC Metal Co.,Ltd.  
 Shandong Guanzhou Co., Ltd.  
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 Central Research Institute of Building and Construction  
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#### International Co-organizers

American Institute of Steel Construction  
 Australian Steel Institute  
 Canadian Institute of Steel Construction  
 Indonesian Society of Steel Construction  
 Japanese Society of Steel Construction  
 Korean Society of Steel Construction  
 Malaysian Structural Steel Association  
 Singapore Structural Steel Society  
 Thailand Structural Steel Society

#### Domestic Co-organizers

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 Beijing University of Technology  
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## Conference Organizations

### PCSSA Steering Committee 2019 – 2023

Chairman: Qingrui Yue, China Steel Construction Society, China  
 Committee: Devin Huber, American Institute of Steel Construction, USA  
 Dong Ho Choi, Korean Society of Steel Construction, Korea  
 Desmond Woon, Malaysian Structural Steel Association, Malaysia  
 Mitsumasa Midorikawa, Japanese Society of Steel Construction, Japan

### PSSC'22 International Advisory Committee

Chairman: Xuhong Zhou, Chongqing University  
 Committee: Chia-Ming Uang, University of California-San Diego  
 Desmond Woon, Malaysian Structural Steel Association  
 Eun-Soo Choi, Hongik University  
 Hiroshi Katsuchi, Yokohama National University  
 Jerry Hajjar, Northeastern University  
 Kyungsik Kim, Cheongju University  
 Leroy Gardner, Imperial College London  
 Ng Yiaw Heong, Singapore Structural Steel Society

### PSSC'22 Local Technical Committee

Technical Consultant: Shilin Dong, Shizhao Shen, Kejian Ma, Changwen Miao, Chunfang Lu, Jian Xu, Luru Chen  
 Chairman: Jianguo Nie  
 Vice Chairmen: Xigang Zhang, Zongyu Gao, Jiaping Liu, Mingxuan He, Yinquan Yu, Yu Lou, Bin Zeng, Zhaoxin Hou, Zhihua Chen  
 Secretary General: Jiansheng Fan  
 Vice- Secretary General: Jinzhi Wu, Suwen Chen, Yuhang Wang, Huiyong Ban, Xiaogang Liu  
 Members: Bing Cui, Binlei Chen, Jianwei Chen, Ming Chen, Pingzhou Cao, Xiaoming Chen, Yiyi Chen, Zhenming Chen, Jiemin Ding, Zhong Fan, Aimin Guo, Fei Han, Jingtao Han, Linhai Han, Qinghua Han, Wenying Huo, Guochang Li, Haiwang Li, Ting Li, Jiepeng Liu, Xiaoguang Liu, Yaming Li, Jiulin Li, Yaozhi Luo, Fanchao Meng, Qingying Ren, Ganping Shu, Qingxuan Shi, Weinong Shu, Hua Tong, Zhong Tao, Cuikun Wang, Jingfeng Wang, Lijun Wang, Qun Wei, Xiuli Wang, Yan Wang, Yaohua Wu, Yuyin Wang, Zhan Wang, Congzen Xiao, Gongyi Xu, Shengqiao Xu, Suduo Xue, Zhiwu Yu, Hua Yang, Guangeng Zhou, Guohui Zhong, Jincheng Zhao, Qinghua Zhang, Xuejun Zhou, Yanxia Zhang, Pengfei Zhao

### PSSC'22 Conference Organizing Committee

Chairman: Yi Liu  
 Vice Chairmen: Changjia Meng, Guoqiang Li, Ailin Zhang, Yongjiu Shi,  
 Secretary General: Qingwei Li  
 Vice Secretary General: Changhe Dai, Haiying Fu, Dongqiong Lv, Sumei Zhang, Zhongyi Zhu, Gang Shi, Houxin Wang, Yu Li

## Conference Topics

- Topic 1: High-rises, Long-span and Spatial Structures
- Topic 2: New Type Composite Structures
- Topic 3: High-performance Steel and Metal Structures
- Topic 4: Assembled Structural Steel buildings
- Topic 5: Design concepts and methods
- Topic 6: Structural stability, fatigue and fracture
- Topic 7: Disaster Resistance and Design
- Topic 8: Artificial Intelligence Based Design Methods
- Topic 9: Advanced Manufacturing and Fabrication Technologies
- Topic 10: Innovative Erection and Construction

### Language

The language of the conference is English which will be used for all printed materials, presentations and discussions. (Simultaneous interpreting is provided for keynote lectures in main venue)

### Other Informations

1. One copy of Conference Proceeding(USB flash disk) is included in the conference documents for Participants and Student Participants. The price is 300 yuan per extra purchase.
2. The Student Participants should provide the student ID card or other supporting documents proving the status as a student.

### Abbreviation

- 1.PSSC, Pacific Structural Steel Conference
- 2.PCSSA, Pacific Council of Structural Steel Associations



## Honorable Guests



Xuhong Zhou,  
Chongqing University (China)



Jianguo Nie,  
Tsinghua University (China)



Qingrui Yue,  
China Steel Construction Society (China)



Xinping Mao,  
University of Science and Technology  
Beijing (China)



Yukihiko Harada,  
Chiba University (Japan)



Hiroshi Katsuchi,  
Yokohama National University (Japan)



Eun-soo Choi,  
Hongik University (Korea)



IR. DR. AZLAN BIN ADNAN,  
Universiti Teknologi Malaysia (Malaysia)



Pang Sze Dai,  
National University of Singapore (Singapore)



Tony T.Y. Yang,  
The University of British Columbia (Canada)



Gregory Macrae,  
University of Canterbury (New Zealand)



Yi Min'Mike' Xie,  
Royal Melbourne Institute of Technology  
(Australia)



Milan Velikovic,  
Delft University of Technology  
(Netherlands)



Xiaoqiang Dai,  
China MCC5 Group Co., Ltd. (China)



Zhibo Li,  
China 19th Metallurgical Group Co., Ltd.  
(China)



Yakun Han,  
Hebei Jinxi Iron and Steel Group Co., Ltd.  
(China)



Marcos Stuart,  
CBMM (Brazil)



Jianping Ding,  
Shandong Guanzhou co.,Ltd. (China)



Zhaobiao Zhang,  
CIMC FSAI (Shanghai)  
Robot Technology Co., Ltd. (China)



# Schedule Overview

October 27, 2023				
10:00-22:00	Registration, (Holiday Inn Chengdu Century City-West Tower, 1 <sup>st</sup> floor)			
18:00-20:30	PCSSA Meeting, CR-Private Room I (InterContinental Century City Chengdu, 6 <sup>th</sup> floor)			
October 28, 2023				
08:30-8:45	Opening Ceremony, Crystal I II III IV (Century City International Convention Center, 5 <sup>th</sup> floor)			
8:45-12:15	Keynote Lectures, Crystal I II III IV (Century City International Convention Center, 5 <sup>th</sup> floor)			
12:15-13:30	Lunch, Sphere Café (Holiday Inn Chengdu Century City-West Tower, 1 <sup>st</sup> floor) + Café (InterContinental Century City Chengdu, 1 <sup>st</sup> floor) + Crystal V VI (Century City International Convention Center, 5 <sup>th</sup> floor)			
13:30-15:30	<b>Session A1</b> High-performance Steel and Metal Structures, Design concepts and methods <b>JinJiang Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session B1</b> Disaster Resistance and Design <b>JinNiu Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session C1</b> New Type Composite Structures, Innovative Erection and Construction <b>QingYang Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session D1</b> Artificial Intelligence Based Design Methods <b>WuHou Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)
15:15-15:30	Coffee Break			
15:30-17:00	<b>Session A1</b> High-performance Steel and Metal Structures, Design concepts and methods <b>JinJiang Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session B1</b> Disaster Resistance and Design <b>JinNiu Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session C1</b> New Type Composite Structures, Innovative Erection and Construction <b>QingYang Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session D1</b> Artificial Intelligence Based Design Methods <b>WuHou Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)
18:00-20:00	Welcome Dinner, Crystal I II III IV (Century City International Convention Center, 5 <sup>th</sup> floor)			
October 29, 2023				
8:30-10:15	<b>Session A2</b> High-rises, Long-span and Spatial Structures <b>JinJiang Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session B2</b> New Type Composite Structures <b>JinNiu Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session C2</b> Disaster Resistance and Design <b>QingYang Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session D2</b> Structural stability, fatigue and fracture <b>WuHou Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)
10:15-10:30	Coffee Break			

10:30-12:00	<b>Session A2</b> High-rises, Long-span and Spatial Structures <b>JinJiang Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session B2</b> New Type Composite Structures <b>JinNiu Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session C2</b> Disaster Resistance and Design <b>QingYang Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)	<b>Session D2</b> Structural stability, fatigue and fracture <b>WuHou Room</b> (Century City International Convention Center, 5 <sup>th</sup> floor)
12:00-13:30	Lunch, Sphere Café (Holiday Inn Chengdu Century City-West Tower, 1 <sup>st</sup> floor) + Café (InterContinental Century City Chengdu, 1 <sup>st</sup> floor) + Crystal V VI (Century City International Convention Center, 5 <sup>th</sup> floor)			
13:30-17:30	Keynote Lectures, Crystal I II III IV (Century City International Convention Center, 5 <sup>th</sup> floor)			
17:30-18:00	Closing Ceremony, Crystal I II III IV (Century City International Convention Center, 5 <sup>th</sup> floor)			
18:00-20:00	Dinner, Sphere Café (Holiday Inn Chengdu Century City-West Tower, 1 <sup>st</sup> floor)			
October 30, 2023				
08:30-12:00	Technical visit			

## Conference Meals

Date		Type of meal	Location	Time
October 27	Lunch	Buffet	Sphere Cafe: Holiday Inn Chengdu Century City-West Tower (1 <sup>st</sup> floor)	12:00-14:00
	Dinner	Buffet	Sphere Cafe: Holiday Inn Chengdu Century City-West Tower (1 <sup>st</sup> floor)	18:00-20:00
October 28	Breakfast	Buffet	Hotel breakfast	06:30-10:00
	Lunch	Buffet	1. Crystal V VI (Century City International Convention Center, 5 <sup>th</sup> floor) 2. Café (InterContinental Century City Chengdu, 1 <sup>st</sup> floor) 3. Sphere Café (Holiday Inn Chengdu Century City-West Tower, 1 <sup>st</sup> floor)	12:00-14:00
	Dinner	Welcome dinner	Crystal I II III IV (Century City International Convention Center, 5 <sup>th</sup> floor)	18:00-20:00
October 29	Breakfast	Buffet	Hotel breakfast	06:30-10:00
	Lunch	Buffet	1. Crystal V VI (Century City International Convention Center, 5 <sup>th</sup> floor) 2. Café (InterContinental Century City Chengdu, 1 <sup>st</sup> floor) 3. Sphere Café (Holiday Inn Chengdu Century City-West Tower, 1 <sup>st</sup> floor)	12:00-14:00
	Dinner	Buffet	Sphere Cafe: Holiday Inn Chengdu Century City-West Tower (1 <sup>st</sup> floor)	18:00-20:00
October 30	Breakfast	Buffet	Hotel breakfast	06:30-10:00
	Lunch	Buffet	Sphere Cafe: Holiday Inn Chengdu Century City-West Tower (1 <sup>st</sup> floor)	12:00-14:00



# Conference Agenda

## October 27 Friday

10:00-22:00	Registration, Holiday Inn Chengdu Century City-West Tower (1 <sup>st</sup> floor)
18:00-20:30	PCSSA Meeting, CR-Private Room I (InterContinental Century City Chengdu, 6 <sup>th</sup> floor)

## October 28 Saturday

The 13 <sup>th</sup> Pacific Structural Steel Conference (PSSC'22) Venue: Crystal I II III IV (Century City International Convention Center, 5 <sup>th</sup> floor)		
08:30-08:45	Opening Ceremony	Chairmen : Guoqiang Li, Suduo Xue
08:45-09:15	Keynote Lecture 1 : Development and challenges of steel structures Qingrui Yue (China)	
09:15-09:45	Keynote Lecture 2 : Advancing the global adoption of Japanese steel building construction technology Yukihiro Harada (Japan)	
9:45-10:15	Keynote Lecture 3 : Shape memory alloys' applications for structures Eunsoo Choi (Korea)	
10:15-10:45	Keynote Lecture 4 : Advances in jointing technology to drive greater productivity in steel construction Pang Sze Dai (Singapore)	
10:45-11:05	Keynote Lecture 5 : Key technology of digital construction of the steel structure mimicry building— "Panda sightseeing tower" Xiaoqiang Dai (China)	
11:05-11:35	Keynote Lecture 6 : Seismic fragility analysis on typical steel structures of thermal power plants Ir. Dr. Azlan Bin Adnan (Malaysia)	
11:35-11:55	Keynote Lecture 7 : Niobium microalloyed steel: helping carbon neutrality route Marcos Stuart (Brazil)	
11:55-12:15	Keynote Lecture 8 : Technical improvement and application practice of hot rolled steel sheet pile products in China Yakun Han (China)	

## October 28 Saturday

Session A1 JinJiang Room (Century City International Convention Center, 5 <sup>th</sup> floor)	Topic 3: High-performance Steel and Metal Structures Topic 5: Design concepts and methods Chairmen : Houxin Wang, He Zhao
13:30-13:45	Research on high-strength steel cover-plate beam-to-column joints Gang Shi
13:45-14:00	Research on application of high performance steel in civil engineering Honglei Wu
14:00-14:15	A 3D constitutive model of high-strength constructional steels with ductile fracture Yanbo Wang
14:15-14:30	High performance steel-concrete composite beams for low-carbon industrial buildings Liu Congzhi, Cong Zhengxia
14:30-14:45	Steel structure design and research of Zhenzhou Olympic sports center stadium sky corridor Yan Zhang
14:45-15:00	Shearing behavior of lockbolted lap connection for aluminum alloy plates and reinforcement method with CFRP Yushuai Zhao
15:00-15:15	Difficulties in design of extra-long viewing platform of Dong'an Lake Stadium Li Yao
15:15-15:30	Coffee Break
15:30-15:45	Experimental and modeling studies of ductile fracture of LYP225 steel considering stress states and loading histories Zhiyang Xie
15:45-16:00	Optimal design of large-span cable-supported steel-concrete composite floor system Meiwen Tan
16:00-16:15	Experimental investigation into the compression resistance of high strength S690 and S960 steels stocky H-sections under a controlled welding process Mengfei Zhu
16:15-16:30	True stress-strain characteristics of S690 and S960 high strength steels based on Modified Bridgman's Method Mengfei Li
16:30-16:45	Finite element analysis of high strength square steel tube high strength steel spiral composite restrained high strength concrete axial compression short column Lisuo Sun
16:45-17:00	Performance of high-strength steel-plate concrete composite shear walls Pixu Chen



Session B1 JinNiu Room (Century City International Convention Center, 5 <sup>th</sup> floor)	Topic 7: Disaster Resistance and Design Chairmen : Qinghua Zhang, Xuechun Liu
13:30-13:45	Development of integrated protection for steel structures in China Yong Du
13:45-14:00	Numerical study on seismic performance of a precast concrete frame with an origami-based buckling-controlled concentric brace Yangqing Liu
14:00-14:15	Seismic performance of steel column bases with replaceable buckling restrained energy dissipation fuses Fangxin Hu
14:15-14:30	Post-fire shear-bond behavior of flat profile FRW steel-concrete composite slab Xianglin Yu, Dong Liu
14:30-14:45	Enhancing seismic resilience of BRBFs using SCBs through probabilistic residual displacement-based design method Ruibin Zhang
14:45-15:00	Influence of damper distribution on seismic performance of steel structures adopting dampers equipped between parallel spine frames Xingchen Chen
15:00-15:15	Design method on the seismic performance of unit-typed composite shear wall with steel plates and infill concrete Dong Liu
15:15-15:30	Coffee Break
15:30-15:45	Fatigue crack growth in wire arc additively manufactured steel specimens Yuanpeng Zheng
15:45-16:00	Theoretical analysis on bond-slip models at interface of CFRP and corroded steel substrate Lianheng Cai
16:00-16:15	A theoretical study on early warning of fire-induced collapse of portal frame based on deformation Jing Hou
16:15-16:30	Numerical analysis on shear performance of PBL shear connectors encased in UHTCC Ruize Zhang
16:30-16:45	Experimental study on shaking table for resilient steel frame with seismic isolation floor system Binglong Wu

Session C1 QingYang Room (Century City International Convention Center, 5 <sup>th</sup> floor)	Topic 2: New Type Composite Structures Topic 10: Innovative Erection and Construction Chairmen: Hua Yang, Huiyong Ban
13:30-13:45	Analysis of the effects of edge misalignment on the bearing capacity of CHS and CFST columns Chao Gong
13:45-14:00	Standard push out tests on large diameter bolted shear connections in prefabricated composite beams Yan Ding
14:00-14:15	Application analysis of laser-mag hybrid welding technology in structural steel Liang Zhang
14:15-14:30	Design and construction of joint structure of steel-concrete arch rib Xinrui Deng
14:30-14:45	Application of laser cutting machine in steel structure. Lina Yang, Ming Lu
14:45-15:00	Application of color coated steel sheet in envelope system and aesthetic value in architecture Feng Cao
15:00-15:15	Axial compression behavior of prefabricated cruciform-section thin concrete encased steel short columns Kun Meng
15:15-15:30	Coffee Break
15:30-15:45	Han's laser cutting machine helps chinese steel structure enterprises create value Meqdad
15:45-16:00	Smart laser cutting machine line for h beams Wang Cheng
16:00-16:15	Axial compressive behavior of multi-called corrugated-plate CFST walls Jiaming Zhang
16:15-16:30	Study and monitoring of unloading program for large-span ring steel structures Qi Guo
16:30-16:45	Research on digital twin technology for large-span steel structures based on 3d laser scanning Hao Ma



October 29 Sunday

Session D1 WuHou Room (Century City International Convention Center, 5 <sup>th</sup> floor)	Topic 8: Artificial Intelligence Based Design Methods Chairmen: Yanxia Zhang, Yuhang Wang
13:30-13:45	Research and application of steel-concrete hybrid tower structures for wind turbines with high hub height Yuhang Wang
13:45-14:00	Research and progress of intelligent manufacturing of building steel structure Zhenming Chen
14:00-14:15	New breakthrough in high-efficiency and intelligent welding application for medium and thick plate steel structures Zhi Meijia
14:15-14:30	Seismic performance of steel staggered truss frame (SSTF) equipped with hybrid dampers showing multiple energy dissipation stages Ke Ke
14:30-14:45	Deep learning-based calibration approach for steel constitutive models considering mechanical knowledge Chen Wang
14:45-15:00	Digital application of beam processing and assembly welding Junfeng Ma
15:00-15:15	An adaptive BIM model generation method for the digital representation of steel modular structures Yi Xia
15:15-15:30	Coffee Break
15:30-15:45	Study on structural design of final joint construction scheme of Shenzhen-Zhongshan Link Rurui Liu
15:45-16:00	Model defines production-----Software unblocks every single unit of structural steel production Wenchao Xu
16:00-16:15	An adaptive and automatic model generation method for steel modular buildings Jiachen Li
16:15-16:30	Pre-processing algorithm for automatic model reconstruction toward measured 3D point cloud of cold-formed steels members Haohao Peng
16:30-16:45	Intelligent optimization design of steel modular structures through variable groupings Liqiang Wang
16:45-17:00	Intelligent construction and safety control of prestressed steel structure based on digital twin Guoliang Shi

Session A2 JinJiang Room (Century City International Convention Center, 5 <sup>th</sup> floor)	Topic 1: High-rises, Long-span and Spatial Structures Topic 4: Assembled Structural Steel buildings Topic 9: Advanced Manufacturing and Fabrication Technologies Chairmen: Jinzhi Wu, Yaohua Wu
8:30-8:45	Performance analysis of a new cable dome with fully assembled cable-piercing ridge-tube Ailin Zhang
8:45-9:00	Study on torsion parameters and regularity indexes of long-span structures considering in-plane deformation Pengfei Zhao
9:00-9:15	Effect of openings on lateral behaviors of corrugated plate module walls and seismic responses of modular buildings Yujie Yu
9:15-9:30	Design and Research of a tensegrity type cable dome with rigid roof Xin-an Xiang
9:30-9:45	Steel Modular Design of High-rise Modular Building in High Seismic Region Yang Chen
9:45-10:00	Research and practice on the standardized and efficient steel-concrete assembly system (the S-CAS) Han Chen
10:00-10:15	Carbon footprint reduction through industry 4.0 and intelligent steel fabrication Luca Morlotti
10:15-10:30	Coffee Break
10:30-10:45	High-power thick plate applications and H-steel profile cutting solutions Jinlong Ding
10:45-11:00	Static performance of H-beam to hollow sphere bolt connections in fully assembled long-span spatial structures Chuanhao Li
11:00-11:15	Numerical simulation of welding residual stress distribution of I-girders with corrugated webs Peng Ning
11:15-11:30	Study on the performance of beam-to-column bolted bracket connection joint for prefabricated steel structures Bowen Jin
11:30-11:45	Effect of weld size on the compression-bending behavior of thick box columns Le Shen
11:45-12:00	Seismic performance of beam- column bolted connection with rib-stiffened outer sleeve in prefabricated steel structures Xuze Feng



Session B2 JinNiu Room (Century City International Convention Center, 5 <sup>th</sup> floor)	Topic 2: New Type Composite Structures Chairmen : Lanhui Guo, Ke Ke
8:30-8:45	Behavior and design of embedded circular concrete-filled steel tubular column base Lanhui Guo
8:45-9:00	Axial compression behavior of prefabricated T-section thin concrete encased steel short columns Xuechun Liu
9:00-9:15	Axial load ratio limit for attainment of full plastic moment of square CFT beam-columns Masae KIDO
9:15-9:30	Experimental study into stub circular concrete-filled steel tubes under uniaxial compression Pengfei Men
9:30-9:45	Mechanical characteristics and multi-objective optimization of the UHPC composite deck in steel girders Linbo Tian
9:45-10:00	Study on in-plane stiffness of assembled double channel composite steel beam with openings Ping Qiu
10:00-10:15	Axial compression behavior of square GFRP tube-encased steel concrete composite short columns Huan Chen
10:15-10:30	Coffee Break
10:30-10:45	A equivalent humidity method for predicting the creep of partially enclosed steel reinforced concrete columns Cunjun Pang
10:45-11:00	Experimental study on the mechanical performance of steel tower-composite tower joint structure Xiaopei Gao
11:00-11:15	Flexural performance of novel profiled steel-UHTCC assembled composite bridge deck considering different shear connection degrees Yunlong Chen
11:15-11:30	Spatial mechanical behaviour of curved composite box girder bridges with corrugated steel webs Ting Guo
11:30-11:45	Numerical study on flexural performance of steel-UHPC composite beams under negative bending moment Xiang Wan
11:45-12:00	Mechanical behavior of square GFRP tube concrete-encased steel composite medium long columns under unidirectional eccentric compression Yuhang Zhou

Session C2 QingYang Room (Century City International Convention Center, 5 <sup>th</sup> floor)	Topic 7: Disaster Resistance and Design Chairmen: Yong Du, Xiongyan Li
8:30-8:45	Structural optimization of simple steel structural frame with oil damper and buckling restrained brace Haruki Yokoyama
8:45-9:00	Seismic Behavior and Design Method of Ultra-High Strength Concrete Filled Square Steel Tube Columns with Additional Confinement Hongsong Hu
9:00-9:15	Recent progress on the application of steel plate concrete structures in nuclear plant engineering Ran Ding
9:15-9:30	Seismic behavior of buckling-restrained steel plate shear walls confined by UHTCC functionally graded panels Jingzhong Tong
9:30-9:45	CLOOS welding technology —latest robotic solution Marc Schoenau
9:45-10:00	Seismic behavior of steel-tube-confined concrete-filled-steel-tubes Xiaozhong Li
10:00-10:15	Experimental study on seismic performance of L-shaped steel columns wrapped with reinforced concrete Longxin Guo
10:15-10:30	Coffee Break
10:30-10:45	Cyclic loading tests on beam-to-column connection with double-stage yield buckling-restrained steel bar dampers Yong Liu
10:45-11:00	Seismic performance of T-shaped steel composite column encased with less reinforced concrete Wenbin Cui
11:00-11:15	Hysteretic performance and design of triple-ladder buckling-restrained braces En-yuan Zhang
11:15-11:30	Recent advances in research on titanium-clad bimetallic steel structures Xiaofeng Yang
11:30-11:45	Study on the thermal behavior of a road-rail steel truss bridge based on field measurements Xin Yang
11:45-12:00	Hysteretic behaviour and design principle of hybrid-self-centring damper employing energy dissipation sequences Huanyang Zhang



### October 29 Sunday

SessionD2 WuHou Room (Century City International Convention Center, 5 <sup>th</sup> floor)	Topic 6: Structural stability, fatigue and fracture Chairmen: Gang Shi, Suwen Chen
8:30-8:45	Experimental study on bending fatigue strength of adhesively bonded joints considering stress ratio Visal Thay
8:45-9:00	Experimental and numerical investigations on the local buckling behavior of hybrid I-sections under uniform bending Shuxian Chen
9:00-9:15	Fatigue crack growth in wire arc additively manufactured steel specimens Yuanpeng Zheng B
9:15-9:30	The validity of the effective length factors determined by stability Takuma Nishimura
9:30-9:45	Multi-scale model for architectural coated fabrics Junhao Xu
9:45-10:00	Axial compression behavior of stub square concrete-filled steel tubes with regional defect: FEA modelling and analysis Lei Zhong
10:00-10:15	Fatigue performance of L-components in bolted flange splice joints for box columns Yongli Tao
10:15-10:30	Coffee Break
10:30-10:45	Numerical investigation on steel bracing members with bolted gusset plate connections Jingyi Xie
10:45-11:00	Buckling resistance of circular steel tubes partially-strengthened by welding under service load Jiafeng Lyu
11:00-11:15	Theoretical and Experimental Study on Design Methods for Stiffened Corrugated Steel Plate Shear Walls Ruomin Wu
11:15-11:30	Research on axial compression and hysteretic performance for cross-shaped corrugated plate steel special-shaped column Ziqin Jiang
11:30-11:45	Comparative study of fatigue performance of composite bridge deck with different perforated shear connector Yichi Shi
11:45-12:00	Effect of corrugation dimensions on global buckling behaviour of multi-celled corrugated-plate CFST walls Chaoxun Yu

The 13 <sup>th</sup> Pacific Structural Steel Conference (PSSC'22) Venue: Crystal I II III IV (Century City International Convention Center, 5 <sup>th</sup> floor)		
13:30-14:00	Keynote Lecture 9: Progress in high-performance bridge steel Xinping Mao (China)	Chairmen: Ailin Zhang, Sumei Zhang
14:00-14:30	Keynote Lecture 10: Vehicle safety against crosswind and long-span bridge aerodynamics Hiroshi Katsuchi (Japan)	
14:30-15:00	Keynote Lecture 11: Next-generation smart, carbon-neutral and resilient infrastructure Tony T.Y. Yang (Canada)	
15:00-15:20	Keynote Lecture 12: Next-generation teaching-free and model-free intelligent welding robot for efficient welding of multiple components in steel structures Zhaobiao, Zhang (China)	
15:20-15:50	Keynote Lecture 13: Creating efficient and elegant structures through topology optimisation Yi Min 'Mike' Xie (Australia)	
15:50-16:10	Keynote Lecture 14: The unusually movement of super-large tonnage steel structure achieves special-shaped beauty of architecture Zhibo Li (China)	
16:10-16:40	Keynote Lecture 15: Fatigue resistance of connections in supporting structures for offshore wind turbines Milan Velikovic (Netherlands)	
16:40-17:00	Keynote Lecture 16: Adhere to plain and systematic scientific theories and scientific research to drive industrial scientific development Jianping Ding (China)	
17:00-17:30	Keynote Lecture 17: The Christchurch rebuild, and the frictional energy dissipation for structures in seismic regions Gregory Macrae (New Zealand)	
17:30-18:00	Closing Ceremony	

### October 30 Monday

08:30-12:00	Technical visit
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