

**The 14th International Symposium on Structural Engineering (ISSE-14)**

**Oct.12-15, 2016**

**Beijing, China**

**Sponsored by**

National Natural Science Foundation of China (NSFC)

**Organized by**

Beijing Jiaotong University

**Co-organized by**

Beijing University of Technology Collaborative Innovative Center of Engineering Disaster Prevention and Reduction in Liaoning

School of Civil Engineering, Beijing Jiaotong University Institute of Heritage Building Structures, Beijing Jiaotong University

Beijing’s Key Laboratory of Structural Wind Engineering and Urban Wind Environment Overseas Expertise Introduction Project for Innovation on Mitigating Wind-Induced Disaster of

Infrastructures Sensitive to Wind (111 plan)

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Journal of *Building Structure*

##### **Guidance of the Kuntai hotel**

昆泰酒店平面导引

【一层 / Floor 1】

【二层 / Floor 2】

酒店大堂 /Lobby in Kuntai Hotel

自助餐厅 /Joy cafe

3 号会议室 /Meeting Room 3

1. 号会议室 /Meeting Room 5
2. 号会议室 /Meeting Room 6

宴会 A+B 厅 /Hall A+B



【26 层 / Floor 26】

【三层 / Floor 3】

8 号会议室 /Meeting Room 8

10 号会议室 /Meeting Room 10

12 号会议室 /Meeting Room 12

15 号会议室 /Meeting Room 15

20 号会议室 /Meeting Room 20

行政酒廊 /Executive Lounge

##### **Notices for the symposium**

会议期间注意事项

【住宿】请所有代表尽量于 10 月 12 日 10:00~21:00 或 13 日早 7:30 前到昆泰酒店 ( 北京市朝阳区望京启阳路 2 号，酒店前台电话：010-

84106118) 一层大厅报到，已经通过会务组预定昆泰酒店房间的代表需凭报到条去前台办理入住，否则无法入住。退房时间为退房当日的

下午 14:00 前，请各位代表合理安排自己的行程。

【**Accommodation**】 Please register on the Kuntai hotel lobby on Oct. 12 or before 7:30 a.m. on Oct. 13. The latest checking out time is 14:00 pm. The Kuntai hotel locates on No.2, Qiyang Road, Chaoyang District, Beijing. Its phone number is +8610-84106118.

【代表证和餐券】代表证是入会场的唯一凭证，务请随身佩带，内有餐券，凭券就餐，遗失不补，请妥善保管。提示：由于参会人数较多， 就餐时段集中，自助餐可能会出现排队现象，由此给您造成的不便我们深表歉意，希望您能理解！

【**Representative card and meal ticket**】The representative card bag contains a representative card and the meal tickets. Please take the representative card with you for entering the meeting room and dining hall.Because of the large number of participants, there may have a long queue for the buffet during dining period, we are sorry for the trouble and hope you can understand!

【发票】已汇款预注册代表，请在 13、14 日 10:00-16:00 到酒店一层会务组处领取发票；现场缴费代表，缴费时开具收据，14 日 14:00- 18:00、15 日 9:00-12:00 到酒店一层会务组处凭收据领取发票。开具收据时请务必提供准确的发票信息和联系电话 , 需要增值税专用发票 的请提前备好相关信息。另外，为了方便沟通交流，建议带上本人名片。

【**Invoice**】 Pre-registered delegates can receive the invoices with the bank receipt from the registration desk on the hotel lobby from 10:00-16:00 on Oct.13 and 14. For those delegates who register onsite will receive a receipt first, and substitute the invoice at the registration desk on the hotel lobby from 9:00-12:00 on Oct. 15. Please provide the title of the invoice and contact information when you pay on site. For your convenience, it is kindly suggested to bring the name card.

【关于会议资料】会议资料袋内包括：摘要集、U 盘（内有论文集电子版）、会议手册（后附可用于笔记的空白页）、《建筑结构》杂志、 宣传单、代表证（内含餐券）、笔。

【**The Conference Material includes**】 Proceedings of abstracts, USB, conference handbook, Journal of *Building Structure*, leaflets, representative

card bag (contains representative card and meal tickets), pen.

■ 正式出版会议论文集（纸质）领取说明

U 盘中的电子论文集包含了所有会议论文；正式出版论文集仅包含送 ISTP 检索的论文。每篇要求送 ISTP 检索的论文可以赠送一套正式出 版论文集，参会的论文作者可于 10 月 13 日 10:00-16:00 到酒店一层会务组处领取。会务组联系人：钟凯 15810180278

The USB contains all the ISSE-14 papers. The special issue only publishes the papers requiring ISTP. Only the ISTP paper can have a special issue, please get it from registration desk on the hotel lobby from 10:00-16:00 on Oct. 13. Contact:Kai ZHONG +86 15810180278

**1**

■ 因涉及版权问题，除非报告专家和学者主动授权，组委会不提供报告专家和学者 PPT 文件。若需要相关资料，请与会代表自行联系报告 人。报告专家和学者主动授权的资料将会通过《建筑结构》官方微信发布（微信号：BuildingStructure）。

Due to the copyright protection, the conference slides, video material and contact information of delegates will not be distributed. If you need any material, please contact the reporter. The slides that reporter agrees to share will be put on the formal WeChat of Journal of *Building Structure* (WeChat account: BuildingStructure), please notice.

■ 会议通讯录与会议合影将在会议结束后通过电子邮件发给与会代表和论文作者。

Conference address book and the photo will be delivered to all the participants through email.

【参会代表外出时注意安全，如需帮助请及时与会务组联系】

##### 【Please pay attention to your safety when you go out. If you have any problem, please contact meeting staffs】

**Location for the conference and accommodation**

会议及住宿地点

昆泰酒店 ( 北京市朝阳区望京启阳路 2 号 )。住宿费：600 元 / 间 / 天（含早餐）。 在会议现场报到完成后，请将住宿费直接交付宾馆，费用自理。

Kuntai hotel (No.2, Qiyang Road, Chaoyang District, Beijing). Living fee: 600 RMB / d for each room (breakfast included). The living fee will be paid by yourself when you check in.

【建筑结构微信】

##### **Contact information of conference staff**

会务组联系方式

李 娜：15801601545（会议报到），李会珍：18618268712（会议报到） 李青青：18911880577（会议住宿），吴 琼：13810273081（会议发票） 钟 凯：15810180278（会议论文集领取），褚浩玥：15810161056（参观） 杨 琳：18701529806（会议咨询），杨 娜：13641094920（会议咨询） 注：论文宣读事宜请联系各会场秘书，联系方式详见后面日程安排

Na LI：+86 15801601545 (Responsible of conference registration) Huizhen LI：+86 18618268712 (Responsible of conference registration) Lin YANG：+86 18701529806（Conference consultation）

Na YANG：+86 13641094920（Conference consultation）

##### **Introduction**

The 14th International Symposium on Structural Engineering (ISSE-14) will be held in Beijing, China. The ISSE-14, scheduled on Oct. 12-15, 2016, is sponsored by the National Natural Science Foundation of China (NSFC). It will be organized by Beijing Jiaotong University, and is co-organized by Beijing University of Technology. The Symposium was derived from the International Symposium on Structural Engineering for Young Experts (ISSEYE) which was held in Leshan, China since 1990. It has been held biannually in China since in Harbin (1992), Shanghai (1994), Beijing (1996), Shenyang (1998), Kunming (2000), Tianjin (2002), Xi’an (2004), Fuzhou (2006), and Changsha (2008). When it was held in Guangzhou in 2010, the title of the symposium was updated to “The International Symposium on Structural Engineering (ISSE)”, and it was also held in Wuhan (2012) and Hefei (2014) with this title. Till now, it has been successfully held for 13 times. With more than 20 years’ of development, ISSE has become attractive to many young and middle-aged elite Chinese scholars all over the world with its distinct characteristics and features. The objective of ISSE-14 is again to provide a forum for experts from the research and engineering communities, who work worldwide in the broad areas of structural engineering and construction, to present recent progress in research and development; to exchange information on the topics of structural analysis, design, construction, maintenance and hazard mitigation; and to discuss the implementation and development of new tools and technologies for professional application leading to safe and sustainable infrastructure. ISSE also aims to promote close international collaboration, cooperation, and mutual understanding.

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##### Vice Chairman

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Yukio TAMURA, Beijing Jiaotong University, China

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 **2**

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Zhong TAO, University of Western Sydney, Australia

Jun TENG, Harbin Institute of Technology, China

#  **3**

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Hongping ZHU, Huazhong University of Science and Technology, China

Xinqun ZHU, University of Western Sydney, Australia/Tianjin Chengjian University, China

##### **Local Organizing Committee**

**Chairman**

Na YANG, Beijing Jiaotong University, China

**Members** (In alphabetical order)

Bo Chen, Zhibao Cheng, Bo Li, Mingqi Lu, Yuji Tian, Xiaofeng Wang, Juan Wang, Di Wu, Jihui Xing, Longhe Xu, Hongjun Xiang, Jian Zhang, Changdong Zhou (Beijing Jiaotong University, China)

Qiang Han, Liu Jin, Guojun Sun, Chengshun Xu, Lu Yang, Mi Zhao (Beijing University of Technology, China)

**Overview**

 **4**

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| **Wednesday Oct 12, 2016** |
| **10:00-21:00** | Registration | Lobby in Kuntai Hotel |
| **18:00-20:30** | Dinner (buffet) | Dining Hall, 1st Floor |
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| **Thursday Oct 13, 2016** |
| **8:10-8:40** | Opening Ceremony | Hall A+B, 2nd Floor |
| **8:40-12:00** | Keynote presentations:Fulin Zhou, Yukio Tamura, Mehdi Saiid Saiidi, Xilin Lü, Kazuhiko Kasai | Hall A+B, 2nd Floor |
| **12:00-14:00** | Lunch (buffet) | Dining Hall, 1st Floor /Executive Lounge, 26thFloor |
| **14:00-18:30** | Invited presentations and Session presentations | Meeting Room 3, 5, 6, 2nd FloorMeeting Room 8, 10, 12, 15, 20, 3rd Floor |
| **19:00-20:30** | Banquet | Hall A+B, 2nd Floor |
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| **Friday Oct 14, 2016** |
| **8:10-12:00** | Keynote presentations:Jiping Ru , Jie Li, Jinping Ou, Xiuli Du, Hongnan Li, Yaojun Ge, Junhai Yong, Qingrui Yue | Hall A+B, 2nd Floor |
| **12:00-14:00** | Lunch (buffet) | Dining Hall, 1st Floor /Executive Lounge, 26thFloor |
| **14:00-18:30** | Invited presentations and Session presentations | Meeting Room 3, 5, 6, 2nd FloorMeeting Room 8, 10, 12, 15, 20, 3rd Floor |
| **19:00-20:30** | Dinner (buffet) | Dining Hall, 1st Floor |
| **20:30-22:00** | Meeting of Academic Committee | Meeting Room 5, 2nd Floor |
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| **Saturday Oct 15, 2016** |
| **8:10-11:30** | Keynote presentations:Xuhong Zhou, Ahsan Kareem, Zhengqing Chen, Ian Buckle, Yeong-Bin Yang, Billie F. Spencer Jr. | Hall A+B, 2nd Floor |
| **11:30-12:00** | Closing Ceremony | Hall A+B, 2nd Floor |
| **12:00-14:00** | Lunch (buffet) | Dining Hall, 1st Floor |
| **14:00-** | Leaving |  |

**Opening and Keynotes**

**Hall A+B, 2nd Floor**

 **5**

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| **Thursday Oct 13, 2016** |
| **Opening Ceremony** |
| **8:10-8:40** | **Opening Ceremony Chair: Na YANG** |
| **Keynote presentations****Chairs: Prof. Jinping Ou and Prof. Giovanni Solari**Secretary: Xiaoda XU / 18210621559 |
| **8:40-9:10** | **Fulin ZHOU** | Development and application on seismic isolation, energy dissipation and structural control in China |
| **9:10-9:40** | **Yukio TAMURA** | Relation between design load level and lifetime of individual building and its elements |
| **9:40-9:55** | **Ahsan Kareem** | Awarding Davenport Medal and Certificate to Prof. Yukio Tamura |
| **9:55-10:10** | Group picture taking; Square, in front of the Hotel |
| **10:10-10:30** | Coffee break |
| **Keynote presentations****Chairs: Prof. Ian Buckle and Prof. Hongnan Li**Secretary: Xiaoda XU / 18210621559 |
| **10:30-11:00** | **Mehdi Saiid SAIIDI** | New horizons in seismic design of highway bridges with advanced materials and construction methods |
| **11:00-11:30** | **Xilin LÜ** | Shaking table test and numerical simulation of self-centering RC frames |
| **11:30-12:00** | **Kazuhiko KASAI** | Current status of motion control to mitigate seismic damage of high-rise buildings and contents |
| **12:00-14:00** | Lunch (buffet) | Dining Hall, 1st Floor / Executive Lounge, 26thFloor |

**Invited Presentations & Session Presentations**

**6**

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| **Thursday Oct 13** | **Session 1****Meeting Room 8, 3rd Floor** Wind Climate & Wind Effects Chairs:Kenny Kwok and Bo Chen Secretary:Ying ZHU / 15810899396 | **Session 2****Meeting Room 10, 3rd Floor** Wind Load on Roofs & Solar PanelsChairs:Qiusheng Li and Shuyang Cao Secretary:Yuan XUE / 17801021158 | **Session 3****Meeting Room 12, 3rd Floor** Dynamic Vibration & Control Chairs:Yong Xia and Jenmu Wang Secretary:Zhangting YAO / 18813071407 | **Session 4****Meeting Room 15, 3rd Floor** Novel Structural System, Composite and Hybrid StructuresChairs:Ditao Niu and Qiuhong Zhao Secretary:Chunyu XIA / 15210577620 |
| **14:00-14:20** | 21\* (invited)Advances in propertiesof thunderstorm outflows relevant to the wind loading of structuresGiovanni Solari | 20\* (invited)Wind pressures on solar panels: current state-of-the-artTed Stathopoulos | 35\* (invited)Towards predicting the acceleration of a standing human whole-body in vertical structural vibrationTianjian Ji | 37\* (invited)Smart rehabilitation of composite structures using innovative bolted shear connectorsXinqun Zhu |
| **14:20-14:40** | 24 (invited)New frontiers in wind engineeringHoria Hangan | 22 (invited)Integration of wind tunnel pressure measurements with the structural model for a large roofRichard G.J. Flay | 212Analysis of damped outriggers systemPing Tan, Chuangjie Fang, and Fulin Zhou | 248Static and fatigue behaviors of stud shear connectors in elastic concrete-steel composite beam Jie Xu, Guang Yang, and Qinghua Han |
| **14:40-14:55** | 121The distribution of the maximum response of structures to synoptic wind actionsGiuseppe Piccardo, Serena Poggi and Giovanni Solari | 120A super lightweight hurricane- resistant thin-walled box-cell roofing systemEhssan Amir Sayyafi, Amir Mirmiran, Arindam Gan Chowdhury | 197Numerical simulation of dynamic behaviors of large- scale magnetorheological fluid dampersY.B. Peng, J.G. Yang | 230Loading method for composite columns with arbitrary bending moment to torsion moment ratioYuhang Wang, Jianguo Nie, and Jiansheng Fan |
| **14:55-15:10** | 128Evaluation of interpolation- enhanced schemes in the unconditional simulation of wind fieldHao Wang, Tianyou Tao | 174Vunerability evaluation of roof panels with consideration of wind pressure correlation Guoqing Huang, Xiaowen Ji, Ying Luo, Kurtis R. Gurley | 199An elastic-plastic time-history analysis on tructure with MR damperYuliang Zhao, Zhaodong Xu, Xiangcheng Zhang | 242Experimental study of ultra- large capacity end-plate connections under axial load Xuesen Chen, Gang Shi, and Dongyang Wang |
| **15:10-15:25** | 173Spectral method for fatigue damage assessmentYing Zhu, Yuji Tian | 153Non-stationary statistics of non-Gaussian wind pressure processes on a large-span long roofM.F. Huang, He Feng, Song Huang and Wenjuan Lou | 200Performance of base-isolated adjacent structures withan integrated base plate in preventing pounding under earthquakeKai Chen, Zhiwei Miao, Aiqun Li, Yong Lu | 239Experimental investigation on Hysteretic behaviour of sqaure hollow section brace-H-shaped chord T-jointsFei Gao, Gengmu Ruan, Xianyuan Zhao and Xinze Guo |
| **15:25-15:40** | 157Wind characteristics near flat ground at and inside the periphery of strong typhoons during the landfall process Jingjing Pan, Lin Zhao , Xudong Liang, Lili Song, Ledong Zhu and Yaojun Ge | 172Wind pressures on low-rise buildings with complex roofs: basic aerodynamics and local wind loadsShuai Shao, Ted Stathopoulos, Qingshan Yang and Yuji Tian | 201Prilimitary study of tmd control of structures with shear- bending couplingYumei Wang, and Zhe Qu | 223Fire resistance of concrete- filled circular steel tubular columns with internal profiled steel under axial compression Wenjing Mao, Yanli Shi, Wenda Wang |
| **15:40-15:55** | 143Research on homogeneous turbulence simulation in boundary layer wind tunnel based on oscillating-grid Kun Lin, Hongjun Liu, Fenyang Wei, Qin Huang | 130Characteristics of wind-induced vertical vibrations of solar wing structureYong Chul Kim, Yukio Tamura, Akihito Yoshida, Takashi Itoh, Shan Wenshan, Qingshan Yang | 202Experimental tests on active control for a twelve-story seismic model structure Weijing Zhang, and Xiaofei Liu | 241Comparison of design methods for the panel zone in different design codesTanshu Xiao, Gang Shi |
| **15:55-16:10** | 129Modeling and application of the WRF-based engineering wind model for tropical cycloneXue Lin, Li Ying | 150Collapse process of pipe- framed greenhouses under static wind loading Kazuya Takahashi,YukiTakadate and Yasushi Uematsu | 203Multiscale simulation of isolated structure considering rubber bearing detailsHui Wang, Wanrun Li, YuPing Sun, Yongfeng Du, Xueping Wang | 161Inter- and intra-structure couplings of wind-excited linked tall buildingsJie Song, Shuguo Liang andK.T. Tse |
| **16:10-16:30** | **Coffee break** |

\*order number in the abstract proceedings

#  **7**

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| **Thursday Oct 13** | **Session 5****Meeting Room 20, 3rd Floor**Bridge Structures Chairs:Zhiwu Yu and Suiwen Wu Secretary:Zhengyuan HUANG / 18811126609 | **Session 6****Meeting Room 6, 2nd Floor** Earthquake Engineering and Aseismic DesignChairs:Kaiming Bi and Tony T.Y. Yang Secretary:Junxiao HE / 18813093455 | **Session 7****Meeting Room 5, 2nd Floor** Structural Health Monitor Damage DetectionChairs:Weixin Ren and Hongjun Xiang Secretary:Lei LIU / 13811633951 | **Session 8****Meeting Room 3, 2nd Floor** Structural Rehabilitation, Retrofitting and Strengthening Chairs:Ying Lei and Changdong Zhou Secretary:Danyang DAI / 13810202534 |
| **14:00-14:20** | 55\* (invited)Bridge condition assessment based on vehicle and bridge interactionC.S. Cai | 34\* (invited)Simulation of the in-plane and out-of-plane seismic performance of nonstructural partition walls with returnsE. Manos Maragakis | 33\* (invited)Cloud-based cyber infrastructure for bridge monitoringKincho H. Law | 39\* (invited)The state of the art of concrete structure durability monitoring and restorationWeiliang Jin |
| **14:20-14:35** | 267Full-scale ambient vibration test and finite element calibration of a concrete-filled steel tubular arch bridgeYun Zhou, Junkai Zhang, Hanyu Peng, Weijian Yi | 90Seismic reliability of reinforced concrete structures with random-field parameters Jingran He, Jianbing Chen | 175Equivalent identification of joint dynamic parameters based on particle swarm optimization algorithmWenfeng Luo and Ling Yu | 257Seismic damages of Nepalese cultural heritage buildings and strengthening measures -- case studies on three durbar squares in MS8.1 Gorkha earthquake Pan Yi,Yuan Shuang,Xie Dan,Wang Xiaoyue |
| **14:35-14:50** | 268Pier scour assessment by dynamic performances of structuresWen Xiong, Jianshu Ye, C.S. Cai | 94Seismic performance of fish- bone BRBS with different configurationsLiangjiu Jia, Hanbin Ge, and Yan Liu | 179A novel structural damage detection method using wireless sensor networksChengyin Liu, Xishuang Han | 105Vertical earthquake research on seismic response of pedestrain bridgesWenxue Zhang, Zhen Wang, Hailu Liu and Rong Fang |
| **14:50-15:05** | 269Effects of track structure on the concrete bridge–borne noise subjected to train impactsXun Zhang, Dewang Yang, Jianqiang Zhang, and Xiaozhen Li | 95Seismic response of buried pipeline in heterogeneous stratum fieldLiyun Li, Xiaoxiao Liu, Xiao Zuo, Junyan Han,and Xiuli Du | 182Field measurement on vibration reduction effects of anti- vibration bearings for vertical train-induced vibrations Liangming Sun, Weiping Xie, and Wei He | 308Compressive behavior of damaged concrete confined with FRP composites and crack process monitoringGao Ma, Hui Li |
| **15:05-15:20** | 271Number of stress cycles for fatigue design of simply- supported steel I-girder bridges Wei Wang, Lu Deng | 96Seismic behavior and design of replaceable steel coupling beamXiaodong Ji, Yandong Wang and Junshan Zhang | 176Regularization parameter selection scheme for moving force identificationHuanlin Liu and Ling Yu | 309Research on key controlling factors for deformation & crack of GFRP reinforced concrete beams under serviceability limit stateCan Sun, Yu Zheng, and Xin Zhang |
| **15:20-15:35** | 273Extremely low-cycle fatigue crack initiation life prediction of thick-walled steel bridge piersShengbin Gao, Shiliang Chi, Hanbin Ge | 213Shaking table test of vibration control effects of particle tuned mass damperZheng Lu, Xiaoyi Chen, Jiang Du, Xinlin Lu | 178Experimental study about the influence of sensor arrangement for long lining structural damage identification Shengnan Wang, Hui Luo, Hongping Zhu, and Wen Fu | 311The behaviour of concrete bridge deck slabs strengthened with NSM FRP bars under the concentrated loadsYu Zheng , Lipeng Xia and Can Sun |
| **15:35-15:50** | 292Ductile crack initiation evaluation in steel bridge piers subjected to random cyclic loadingLan Kang and Hanbin Ge | 91Seismic behavior of concrete- encased CFST industrial workshop structuresGuolei Xing, Jinyang Chen, Yongfeng Wang, Chao Hou, Ye Cui, Danyang Ma | 183A statistical model updating method of beam structure using static measurement data with non-Gaussian errorsZhifeng Wu and Bin Huang | 310Symptom-based reliability analysis and remaining service life prediction for steel bridge members due to fatigueTianli Huang, Yanjie He, Huapeng Chen |
| **15:50-16:05** | 280Computational analysis of wave force of substructure to cross-sea bridge based on code and numerical simulation Chen Fang, Yongle Li,Zilong Ti, Dapeng Mei, Shunquan Qin | 170Calculation of structural responses and response sensitivities by dynamic condensation approach Shun Weng, Wei Tian, Hongping Zhu, Yong Xia, Fei Gao, Funian Li | 184A study of projection scheme based on orthogonalizable power polynomial basis vector Yejun Li, Bin Huang, Jun Liu, Heng Zhang | 305Impact resistance of flax fibre reinforced polymer laminates coconut fibre reinforced concrete (FFRP-CFRC) beams Wenjie Wang and Nawawi Chouw |
| **16:05-16:30** | **Coffee break** |

\*order number in the abstract proceedings

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 **8**

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| **Thursday Oct 13** | **Session 9****Meeting Room 8, 3rd Floor** Wind Effects on High-rise BuildingsChairs:Giovanni Solari and M.F. HuangSecretary:Ying ZHU / 15810899396 | **Session 10****Meeting Room 10, 3rd Floor** Wind Tunnel Tests & Field MeasurmentsChairs:Richard G.J. Flay and Guoqing HuangSecretary:Yuan XUE / 17801021158 | **Session 11****Meeting Room 12, 3rd Floor** Dynamic Vibration & Control Chairs:Tianjian Ji and Pin Tan Secretary:Zhangting YAO / 18813071407 | **Session 12****Meeting Room 15, 3rd Floor** Novel Structural System, Composite and Hybrid StructuresChairs:Xinqun Zhu and Qinghua Han Secretary:Chunyu XIA / 15210577620 |
| **16:30-16:50** | 28 (invited)An acrosswind equivalent static wind load model for rectangular shaped tall buildingsChii-Ming Cheng | 29 (invited)Field measurements of typhoon-induced wind effects on low-rise buildings Qiusheng Li | 30 (invited)Typhoon-induced and temperature-induced responses of a supertall structureYong Xia | 51 (invited)Study on the durability of concrete with environmental corrosion and fatigue load Ditao Niu |
| **16:50-17:10** | 26 (invited)Motion perception, occupant comfort and work performance in wind-excited tall buildings Kenny Kwok | 25 (invited)A new interplitation of galloping of a rectangular cylinder in smooth flow Hiromasa Kawai | 165The establishment of wind spectrum estimation models for dome-like structures using artificial neural networks Jenmu Wang, Yuan-Lung Lo, Po-Yi Liu, Yuh-Yi Lin and Cheng-Hsin Chang | Parametric studies on the ductility performance of integral abutment bridges Qiuhong Zhao |
| **17:10-17:25** | 164Downstream interference effect of high-rise buildings under turbulent boundary layer flow Yuan-Lung Lo, Yong Chul Kim, and Yi-Chao Li | 126Tornado-induced wind pressures on a cooling tower Shuyang Cao, Jin Wang, and Jinxin Cao | 149The introduction of the system of monitoring and early- warning of gale in driving controlChuanjin Yu, Yongle Li | Seismic performance of corrugated steel plate shear walls (CoSPSWs) and stiffened steel plate shear wallsQiuhong Zhao |
| **17:25-17:40** | Wind effects of one cable- suspended roof with full-scale measurement and wind tunnel based methodBo Chen | 122Large eddy simulation of turbulent atmospheric boundary layer through recycling rescaling revising method Chao Li, Jinghan Wang and Yiqing Xiao | 167Principles of taking values of wind-induced interference factors for a group of large- scale cooling towersJinxin Cao, Yezhan Li, Lin Zhao, and Yaojun Ge | 246Study on bearing capacity of composite shear wall with CFST columns incorporating FRP-confined concrete core Fengming Ren, Yaxin Guo, Zhaopeng Liu, Jinwen Chen |
| **17:40-17:55** | 119Multivariate analysis on Reynolds number effects of wind loads on rectangular high- rise buildings based on wind tunnel testsYao Zou, Shuliang Wang, Shuguo Liang and Lianghao Zou | 135Numerical study on wind turbine wakes: parameters analysisJianxiao Hu, Qingshan Yang, and Jian Zhang | 162Wind load model for large-span flat roofs and its application in database-assisted designNing Su, Ying Sun, Yue Wu and Shizhao Shen | 93Experimental study on buried pipe network using an artificial earthquakeHuiquan Miao, Wei Liu, Chuang Wang and Jie Li |
| **17:55-18:10** | 146Dynamic response and fatigue analysis of semi-submersible offshore platform with upper high-rise tower under combined wind & wave loadsJin Ma, Dai Zhou, Fangfei Li | 137LES simulation of unsteady aerodynamic characteristics for large-span flat roof TianLi , Qingshan Yang , Takeshi Ishihara and Jian Zhang | 160Study on coastal bridge damage under the action of extreme waveBo Huang, Bing Zhu, Jiawei Zhang | 195Robust design of a new composite tuned liquid damper Jingyao Zhang and Kenny Kwok |
| **18:10-18:25** | 125Comparative study of along- wind and across-wind loads on tall buildings with different codesZhengwei Zhang, Alex To | 134Wake flow induced vibrationsof vertical hangers behind the tower of a long-span suspension bridgeWenli Chen, Donglai Gao, Hui Li and Hui Hu | 214Large attenuation zones and vibration responses in periodic slabs with cross-like holes Jiankun Huang, Xiaohan Wan, Wen Liu, Ke He, and Hongtao Liu | 206Numerical analysis of progressive collapse of vertically irregular RC isolated frame steucture due to sudden failure of isolatorYongfeng Du, Xiaoning Huang, Chao Bao |

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| **18:25-18:50** | 142Experimental investigation of the characteristics of unsteady wind loads on high- rise building with rectangular sectionJiadong Zeng and Mingshui Li | 226Experimental study on a new type of composite beam with corrugated steel webs Chaoran Guo, Muxuan Tao, Jianguo Nie, Liang Dai, Xianqian Wang and C.S.Cai | 224Experimental study• on the compression of variable concrete filled steel tubular laced columnsJun Zhou, Jiangang Wei, Lei Huang, Baochun Chen | 238Research on the behavior of CTLC stub columns under axial compressionBin Li, Miao Li, Chunyan Gao |
| 147Numerical study of flow around circular cylinders with shape modificationKai Zhang, Dai Zhou, Hiroshi Katsuchi and Hitoshi Yamada | 225Experimental research on concrete-encased composite columns with l-shaped steel sectionsYunfeng Xiao , Zhengtao Zhou, Yiguang Chen, Siqian Jin, and Lei Zeng | 72Analysis on optimal variable cross-sectional cantilever Jiansuo Ma, Miaomiao Zhou,Huanqin Cai, Runshan Bai and Shuan Feng | 240Static and fatigue behaviors of stud shear connectors in elastic concrete-steel composite beam Jie Xu, Guang Yang, and Qinghua Han |
| 209Damage performance evaluation of eccentric isolated structure system considering impact under ground motions Qiaorong Yang, Maolai Ran, Tianjiao Ren, Yang Liu | 198Discrete element method numerical investigation on the particle damperShaozhen Duan, Wenda Wang | 227Experimental and numerical investigation on steel-concrete composite beam with uplift- restricted and slip-permitted screw-type connectorsSanwei Han, Muxuan Tao, Jianguo Nie, and C.S. Cai | 228Study of mechanical properties of a type of lightweight composite slab under static loadsJing Yang, Haisong Gu, Xintang Wang |
| **19:00-20:30** | **Banquet** | **Hall A**+**B, 2nd Floor** |

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| **Thursday Oct 13** | **Session 13****Meeting Room 20, 3rd Floor**Bridge Structures Chairs:C.S. Cai and Yun Zhou Secretary:Zhengyuan HUANG / 18811126609 | **Session 14****Meeting Room 6, 2nd Floor** Earthquake Engineering and Aseismic DesignChairs:E.M. Maragakis and Longhe XuSecretary:Junxiao HE / 18813093455 | **Session 15****Meeting Room 5, 2nd Floor** Structural Health Monitor Damage DetectionChairs:K.H. Law and Ling Yu Secretary:Lei LIU / 13811633951 | **Session 16****Meeting Room 3, 2nd Floor** Structural Rehabilitation, Retrofitting and Strengthening Chairs:Weiliang Jin and Pan Yi Secretary:Danyang DAI / 13810202534 |
| **16:30-16:50** | 43 (invited)Random dynamic analysis of train-bridge system involving system parameters with probability density envolution methodZhiwu Yu | 45 (invited)Influence of seawater layer on the seismic response of buried offshore pipelinesKaiming Bi | 48 (invited)Nonlinearity and uncertainity issues in structural health monitoring dataWeixin Ren | 44 (invited)Improved integration of structural identification and structural reliability evaluation Ying Lei |
| **16:50-17:05** | 296Experimental study on the seismic behavior of skew bridges with seat-type abutmentsSuiwen Wu, Ian G. Buckle, and Ahmad M. Itani | 92Earthquake induced pounding response between two adjacent buildings with setback Kaiming Bi, Hong Hao | 80Experimental study on progressive collapse behavior of beam-to-column assemblies with asymmetric spanBao Meng, Weihui Zhong, Jiping Hao | 171Simplified reliability approach for structures under impulsive loadsPierluigi Olmati |
| **17:05-17:20** | 297Research progress on fatigue assessment of steel bridges based on fracture mechanics Liang Zong, Gang Shi, Yuanqing Wang, Yang Ding | 97Seismic collapse resistance evaluation of one super-tall building with different lateral force resisting systemsXiao Lu and Xinzheng Lu | 76Analysis of the stainless steel beam-to-column connection panel zoneZihong Lin, Gang Shi | 315Finite element analysis of tubular k-joint reinforced with ring stiffeners subjected to impact loadingXiaoxiao Di, Hui Qu , Yali Jiang |
| **17:20-17:35** | 281Lateral resonance of railway bridges subjected to moving trainsZhibin Jin, Shiling Pei, Yan Zhu, Xiaozhen Li | 99Performance of a seismically repaired masonry building T.Wang, X.Zhong , X.F.Xu | 77Finite element parametric analysis of cast steel joints for Tangshan Letai CentreXun Wang, Gang Shi, Yong Zhang | 314Mechanical properties of existing simply-supported railway bridges with adding steel bracesXu Zhang, Changdong Zhou |
| **17:35-17:50** | 291Selection of earthquake intensity measures of large- span cable-stayed bridges with floating systemWengao Lu, Zheng He, Yantai Zhang | 100Application of equivalent constitutive model for an actual damaged steel frame under strong earthquakeMeng Wang, Xinyang Sun, Weiguo Yang, Yongjiu Shi, Yuanqing Wang | 78Investigations on the behavior of high strength steel connections with grade 12.9 boltsYufeng Chen, Gang Shi | 312Interaction of debonding and crack growth in cracked steel plates strengthened with CFRP sheetsLili Hu, Peng Feng, Xiaoling Zhao |
| **17:50-18:05** | 295Interaction, practices and development of accelerated bridge construction (ABC) in deck and girderBishnu Gupt Gautam, Yiqiang Xian | 101Regional seismic damage simulation for tall building groups: a case of central business district in Beijing Chen Xiong, Zhen Xu, Xinzheng Lu, Lieping Ye | 79Numerical simulation of welding residual stress at U-ribs of orthotropic steel deckLing Kang, Yadong Li, DidierD. Boko-Haya, Tingmin Mu | 317Experimental study on compression behavior of FRP tube bulging-restrained rebar Zeyuan Wang, Yi Zhao, Peng Feng |
| **18:05-18:20** | 154Correlation and power spectral density functions of turbulence relative to moving vehicles Naijie Yan, Xinzhong Chen, Yongle Li, and Koffi Togbenou | 106Seismic regional fragility analysis for high-rise RC chimneyMiaowang Tian, Changdong Zhou | 169Analysis of dynamic response of vehicle-track coupling system with a explicit method Ling Ye, Hongping Zhu, Shun Weng, Fei Gao, Fangyuan Zhou | 104Effect of the site type on seismic response properties of different deck relative height cable-stayed bridgeWenxue Zhang, Qing Li, and Zhen Wang |

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| **18:20-18:50** | 307Seismic performance of GFRP retrofitting corrosion damaged concrete filled steel tube Chunyang Zhu, Yinghua Zhao, Li Sun and Minghai Wei | 114Experimental investigation on panel zone shear behavior of unequal-depth-beams to CFT column connection with external diaphragmBen Mou, Chunwei Zhang, Shan Jiang and Lei Yang | 247Mechanical behavior of concrete filled -bilateral steel plate composite shearwalls using bolt connections: experiment and finite elemtent modelingLimeng Zhu, Hongmei Xiao, Chunwei Zhang | 319Extended element simulation of the splitting test based on the microstructure of asphalt mixtureLei Zhang, Zhongshan Ren and Wenwei Wang |
| 290Negative shear-lag behavior of steel-concrete composite twin- girder decksLi Zhu, Jianguo Nie and Wenyu Ji | 116Application of story damage model based seismic assessment approach: case study of existing RC frame structuresNing Ning, Zhongguo John Ma, Chunwei Zhang, Shan Jiang | 177Model test on damage recongnition of cable-stayed bridges based on dynamic characteristicsZhongming Ye, Min Xia, Peng Wei | 112Study on the dynamic and time-frequency characteris of fra-field long-period ground motionJianping Gao, Haiping Zuo, Qunhao Wen |
| 266Sensitivity analysis of damage indices derived from bridge influence linesZhiwei Chen, Luye Mo | 115Numerical analysis of hysteretic performance of double-steel- layer-concrete composite shear wallJian Li, Chunwei Zhang, Limeng Zhu, Shan Jiang | 208Seismic response analysis of isolated museum based on strong motion observation Weixin Yu, Wenguang Liu, Wenfu He, Chuanbo Fu | 316Experimental study on flexural fatigue performance of steel fiber reinforced concrete Meng Chen,Jiexin Zou,Ye Sun,Xuechun Zhang |
| **19:00-20:30** | **Banquet** | **Hall A+B, 2nd Floor** |

 **11**

**Keynotes**

**Hall A+B, 2nd Floor**

 **12**

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| **Friday Oct 14, 2016** |
| **Keynote presentations****Chairs: Prof. Kazuhiko Kasai and Prof. Zhongxian Li**Secretary: Xiaoda XU / 18210621559 |
| **8:10-8:40** | **Jiping RU , Jie LI** | Twenty years for fundamental researches of structural engineering: A report from National Natural Science Foundation of China |
| **8:40-9:10** | **Jinping OU** | Research advances and prospects on evolution from earthquake/wind hazard to engineering disaster in China |
| **9:10-9:40** | **Xiuli DU** | Numerical simulation and analytical method for earthquake damage evolution of high dams, underground structures and large cavern groups |
| **9:40-10:10** | **Hongnan LI** | Studies on seismic damages and collapses of large scale buildings and bridges |
| **10:10-10:30** | Coffee break |
| **Keynote presentations****Chairs: Prof. Ahsan Kareem and Prof. Zhengqing Chen**Secretary: Xiaoda XU / 18210621559 |
| **10:30-11:00** | **Yaojun GE** | Strong/typhoon wind hazard and effects on major structures and bridges |
| **11:00-11:30** | **Junhai YONG** | Studies on integrated numerical simulation platforms for disaster evolution of civil infrastructure under strong wind and earthquake |
| **11:30-12:00** | **Qingrui YUE** | Research and application on diagnosis and rehabilitation of industrial buildings in China |
| **12:00-14:00** | Lunch (buffet) | Dining Hall, 1st Floor / Executive Lounge, 26thFloor |

**Invited Presentations & Session Presentations**

 **13**

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| **Friday Oct 14** | **Session 17****Meeting Room 8, 3rd Floor** Wind Effects & Codification Chairs:Yasushi Uematsu and Lin Zhao Secretary:Ying ZHU / 15810899396 | **Session 18****Meeting Room 10, 3rd Floor**Structural Analysis Chairs:Bin Huang and Liberato Ferrara Secretary:Yuan XUE / 17801021158 | **Session 19****Meeting Room 12, 3rd Floor** Dynamic Vibration & Control Chairs:Siuseong Law and Juan Wang Secretary:Zhangting YAO / 18813071407 | **Session 20****Meeting Room 15, 3rd Floor** Novel Structural System, Composite and Hybrid StructuresChairs:Feng Fan and Xiongyan Li Secretary:Chunyu XIA / 15210577620 |
| **14:00-14:20** | 31 (invited)Wind hazard mapping for China and code making under uncertaintyH.P. Hong | (invited)High precision displacement measurement for structural engineering applications Hoon Sohn | 56 (invited)Operational modal analysis and continuous dynamic monitoring of structuresJun Teng | 50 (invited)Health diagnostic method of urban rail transit underground structuresHongping Zhu |
| **14:20-14:40** | 27 (invited)Inelastic responses of wind- excited tall buildings with bilinear hysteretic restoring force characteristics Xinzhong Chen | 59Identifying the interacting forces between a primary structure and a secondary structure with multiple supports Ellys Lim and Nawawi Chouw | 218Damping effect on a baseisolated structureYing Zhou, Peng Chen | 231Effects of coarse recycled aggregate on the strength and ductility of composite steel- concrete beamsBalbir Singh, Ee Loon Tan, Vivan Tam and Zhong Tao |
| **14:40-14:55** | 168Stayed-cable aerodynamic forces with helical line Qingkuan Liu, Conghui Li, Yunfei Zheng, Wenyong Ma, Xiaobing Liu | 58PDEM-based reliability analysis of a reinforced concrete frame structure with uncertain parametersJunyi Yang, Jianbing Chen, Jie Li | 216The frequency adjustable tuned mass damper based on magnetorheological elastomers Jianwei Tu, Fangpeng Lai, Bochao Wang | 232Finite element modelling of composite steel-concrete slab with bubble deckEe Loon Tan and Jay Shanmugam |
| **14:55-15:10** | 124Aerodynamic analysis of pedestrian arch bridgesMing-Hui Huang, Yuh-Yi Lin, Bo-Xum Chen and Chern-Hwa Chen | 60Study on statistical models for blast loads on building structures under close-in explosionsYanchao Shi, Pan Hu and Zhongxian Li | 220Collocated control solution for enhanced damping of bridge cable with self-sensing MR damperZhaohui Chen, and Yiqing Ni | 233Cracking behavior of SFRSCC beams containing conventional reinforcementXiliang Ning, Cong Zeng, Fasheng Zhang, Yining Ding |
| **15:10-15:25** | 139Galloping response characteristics of a cylinder with a D-sectionWenyong Ma , Ranran Deng , Jinyu Lu , Qingkuan Liu | 69Implementations of material constitutives for implicit and explicit analyses by using ABAQUS beam-column elementsShuang Li, Kang Liu, Changhai Zhai, Lili Xie | 217Performance evaluation of seismic dampers based on benchmark modelWei Guo, Yao Hu, Jun Wu, Yunsong Li | 235Wave propagation analysis of concrete-filled steel tubular coupled with PZT patches using spectral element method Lele Luan and Bin Xu |
| **15:25-15:40** | 145Nonlinear post-flutter simulation of long-span bridges Zhitian Zhang | 61Bipedal crowd-structure interaction including pedestrians interaction Yan,an Gao, Qingshan Yang | 221An alternative nonlinear mechanical model for elastomeric bearings including the effects of vertical loads Hongping Zhu, Zixiang Zhang, and Fangyuan Zhou | 234Geometry optimization of the prestressed concrete andsteel segments for prestressed concrete-steel hybrid wind turbine towersZeyu Li, Bin Xu, and Hongbing Chen |
| **15:40-15:55** | 159Numerical analysis on the difference of drag force coefficients of bridge deck sections between the global force and pressure distribution methodsYan Han, Hao Li, C. S. Cai, Guoji Xu, Lian Shen | 65Frequency calculation of random structures using recursive stochastic finite element method and padé approximationXuelong Chen, Heng Zhang and Bin Huang | 222Seismic damage control of nonlinear continuous reinforced concrete bridges under extreme earthquakes using MR dampers Zhongxian Li, Yu Chen, Yundong-Dong Shi | 236Finite element analysis of concrete-filled cold-formed steel tubular stub columns Aizhu Zhu, Xiaowu Zhang, Mu Li |
| **15:55-16:10** | 144Numerical simulation and experimental investigation on wind field around two adjacent hillsJianfeng Yao , Guohui Shen , Wenjuan Lou , Dan Yao | 71Force-displacement decoupled control of engineering structures with multi-degree- of-freedom testingHuimeng Zhou, Mengning Li, and Tao Wang | 169Analysis of dynamic response of vehicle-track coupling system with a explicit method Ling Ye, Hongping Zhu, Shun Weng, Fei Gao, Fangyuan Zhou | 289Model experiment of wave loads on superstructure of box girder bridgesJiawei Zhang, Bing Zhu |
| **16:10-16:30** | **Coffee break** |

**14**

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| **Friday Oct 14** | **Session 21****Meeting Room 20, 3rd Floor**Bridge Structures Chairs:Guoxing Lu and Guohua Xing Secretary:Zhengyuan HUANG / 18811126609 | **Session 22****Meeting Room 6, 2nd Floor** Earthquake Engineering and Aseismic DesignChairs:Yong Lu and Yong Yang Secretary:Junxiao HE / 18813093455 | **Session 23****Meeting Room 5, 2nd Floor** Steel Structures and Metal StructuresChairs:Giuseppe Piccardo and Jun Li Secretary:Lei LIU / 13811633951 | **Session 24****Meeting Room 3, 2nd Floor** High Performance Material and Smart MaterialChairs:Bo Wu and Feng Xing Secretary:Danyang DAI / 13810202534 |
| **14:00-14:20** | 47 (invited)Recent developments in structrual health monitoring based on vehicle-bridge interactionXinqun Zhu | 54 (invited)Pounding tuned mass damper (PTMD) – a novel device for passive structural vibration controlGangbing Song | 46 (invited)Behaviour of hybrid stainless- carbon steel composite beam- column joints with blind bolts Zhong Tao | 53 (invited)Concrete material model for intense dynamic loadings Qin Fang |
| **14:20-14:35** | 282Resonance of a high speed train moving on multi-span bridgesY.J. Wang, J.D. Yau, and J. Shi | 304Preliminary study on bridge earthquake emergncy inspectation using gerneral purposed UAVJi Dang, Daijiro Haruta, Ashish Shrestha, Shogo Matsunaga, Xin Wang | 189Health monitoring systeem for the high-speed railwayX-arch bridge based on cloud computingXuhui He, Kang Shi, Hongxi Qin, Yunfeng Zou | 320A study on the chloride- induced corrosion configuration of reinforcing steel in RC structuresZhaohui Lu, Yibin Ou, Yangang Zhao and Chunqing Li |
| **14:35-14:50** | 283Cyclic behavior of beam- column joint connections in rigid-framed railway bridges with reduction of transverse reinforcements by using PP- ECCRui Zhang, Koji Matsumoto, Takayoshi Hirata, Yoshikaze Ishizeki and Junichiro Niwa | Development and implementation of the next- generation performance-based earthquake engineeringTony T.Y. Yang | 186Application of the embedded 3D electro-mechanical impedance model on reinforced concrete beamDansheng Wang, Xiaomeng Zhou, and Hongping Zhu | 324Effects of loading conditions on chloride diffusivity of concrete Hailong Wang and Xiaoyan Sun |
| **14:50-15:05** | 286Mechanical characteristics and parametric study of a kilometer-scale rail-cum-road cable-stayed bridgeHui Guo, Suoting Hu, Xinxin Zhao, Bin Niu | 107Analysis of the stability for shaking table based nonlinear rtds considering specimen-table interactionJun Guo, Zhenyun Tang, Shicai Chen, Zhenbao Li | 81Finite element investigation on double shear bolted connections of cold-formed stainless steel in fireYancheng Cai , Ben Young | 318Experimental study on the residual stress of Q420 large-section hot-rolled and galvanized steel equal leg anglesYuan Gao, Gang Shi,Yong Zhang , Huiyong Ban |
| **15:05-15:20** | 288The fatigue behavior of web under bending-shear of concrete box girder bridge Ming Yuan, Lian Huang, Donghuang Yan, Kun Zhu | 103Long-period ground motion simulation and its impact on seismic response of high-rise buildingsRongpan Hu, Youlin Xu and Xin Zhao | 192Data recovery from de- quantized compressed measurements for structural modal analysisJie Kang, Biao Sun, and Zhongdong Duan | 322A meso-numerical modeling method for concrete using image processing technology Shanshan Qin, Dujian Zou, Tiejun Liu and Jun Teng |
| **15:20-15:35** | 284Influence of F-rail in the coupling vibration analysis of low-medium speed maglev train-bridgeDangxiong Wang, Xiaozhen Li, Xun Zhang, Dejun Liu | 109Simplified seismic performance evaluation of reinforced concrete frame based on modal incremental dynamic analysis Jianping Han and Jingwei Wang | 188Piezoelectric energy harvesting from vibration in bridges under moving vehiclesZhiwei Zhang, Hongjun Xiang and Zhifei Shi | 323Static and elastoplastic analysis for high-strength lightweight aggregate concrete structure Tao Wu, Quanwei Liu |
| **15:35-15:50** | 285Simulation study of vehicle- bridge coupling vibration for suspended monorail transit Yulong Bao, Yongle Li, and Dingjia Jie | 113Seismic behavior of assembled and semi-assembled recycled concrete shear walls with single row of steel barsChengwei Liu, Wanlin Cao, Shimeng Wang, Chengjie Qin | 187Microstructure and properties of thick film resistors on fluorophlogopite glass ceramic substrateXinchun Guan, Ming Wen, Hui Li and Jinping Ou | 335Experimental study on high performance filling lightweight aggregate concreteMingju Zhang, Xueyuan Guo, Zhanguo Li, Xiaofan Chen, Yi Liu |
| **15:50-16:05** | 287Numerical simulation for propagation of wave field at an archipelago coastal bridge site using spectral wave model Zilong Ti, Shunquan Qin, Dapeng Mei , Yongle Li | 108An experimental investigation into train-induced ground vibrations nearby the elevated bridge on the railway line Zhijun Zhang , Guiyuan Chen, Xiaozhen Li , Xun Zhang | 193Experiment on the shield tunnel damage identification based on arma model residualsWen Fu , Hui Luo , Shengnan Wang , Hongping Zhu | 211Influences of the materials damping on the isolation performances of one- dimensional periodic foundationZhibao Cheng, Xiaoxi Yu, and Zhifei Shi |
| **16:05-16:30** | **Coffee break** |

 **15**

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| **Friday Oct 14** | **Session 25****Meeting Room 8, 3rd Floor** Wind Effects on Towers & Other StructuresChairs:H.P. Hong and Qingkuan Liu Secretary:Ying ZHU / 15810899396 | **Session 26****Meeting Room 10, 3rd Floor**Structural Analysis Chairs:Hoon Sohn and Jianbing Chen Secretary:Yuan XUE / 17801021158 | **Session 27****Meeting Room 12, 3rd Floor** Historical and Heritage StructuresChairs:Jun Teng and Ying Zhou Secretary:Zhangting YAO / 18813071407 | **Session 28****Meeting Room 15, 3rd Floor** Large-scale Structures Space StructuresChairs:Hongping Zhu and Ee Loon TanSecretary:Chunyu XIA / 15210577620 |
| **16:30-16:50** | 23 (invited)Wind resistant design of ring- stiffened oil storage tanks Yasushi Uematsu | 42 (invited)Natural frequency of structure with random parameters based on generalized Taylor series Bin Huang | 36 (invited)A general extended Kalman filter with unknown inputs Siuseong Law | 49 (invited)Dynamic behaviour of reticulated shells under blast loadingFeng Fan |
| **16:50-17:10** | 32 (invited)Application of wind tunnel for modelling pollution dispersion in the neutral atmospheric boundary layerBaoshi Shiau | 75Efficiency of mechanical floor connections on the diaphragm action of precast concrete floor/ roof decksBruno Dal Lago and Liberato Ferrara | 249Vertical bearing performance of Chinese bracket sets of Qing dynasty by experimentQian Zhou, Na Yang, and Weiming Yan | 262Mechanical performance and research progress of annular crossed cable-trussRenjie Liu, Suduo Xue, Marijke Mollaert, Xiongyan Li |
| **17:10-17:25** | 156Fluctuating wind pressure distribution around full-scale cooling towerLin Zhao and Yaojun Ge | 204Development and experimental verification of a pre-pressed spring self-centering energy dissipation braceXiaowei Fan, Longhe Xu, Zhongxian Li | 252Finite element analysis on mechanical behavior of column foot joint in traditional Chinese timber structuresJuan Wang, Junxiao He , Qingshan Yang | 261Numerical simulation and experimental verification on bending performance of threaded-sleeve connectionXiongyan Li, Chen Yao, Siyao Li and Suduo Xue |
| **17:25-17:40** | 123Parametric investigation of the vibration behavior of an air- filled cushionMarc I. Henn , Qingshan Yang and Mei Lu | 73Analytical solution for the linear wave diffraction by a uniform vertical cylinder with an arbitrary smooth cross- sectionAnxin Guo, Jiabin Liu | 253The wooden frame bearing capacity calculation with vertical side gaps between Dougong membersJinyong Cheng , Qingfang Niu, Guanfeng Qiao , Xiwang Shi , Tieying Li , Jianwei Wei | 259Comparison of seismic response of single-layer cylindrical lattice shell estimated using time history analysis and response spectrum methodY.G. Li, F. Fan and H.P. Hong |
| **17:40-17:55** | 136Estimation of extreme wind load for cladding designYi Hui, Zhengnong Li | 74Seismic vulnerability analysis of RC hyperbolic cooling tower under multi-dimensional earthquakesPengguo Wang, Changdong zhou | 254The analytical solution of a morphology-based model used to evaluate the influence of damage for wood structures Lei Zhang, Na Yang | 258Progressive collapse analysis of single layer saddle- shaped reticular shell based on micromechanical fracture prediction methodJihui Xing, Yanyu Li |
| **17:55-18:10** | The research of wind-resistance of traditional timber slope roofs Q.Yang, B.Li, Y.Tamura , W.Shan | 68Unsymmetrical nonlinear bending problem of circular thin plate with initial damag Lei Li, Jiping Hao, Yahao Ding | 256A new method for public participant monitoring of the Great Wall using smartphone Niannian Wang, Linan Wang, Xuefeng Zhao , Dawei Li, Yan Yu, Mingchu Li, Jinping Ou | 229Damage index of multi-ribbed composite wall and influence of shear span ratio on mechanical properties of the wallPeng Chang, Kai Zhang, Haojie Shi |
| **18:10-18:25** | 140Effects of parapet heights on wind laods on flat, roof- mounted solar arraysJingxue Wang, Xuesen Zhang, Qingshan Yang and Yukio Tamura | 70Computation of equivalent moment of inertia of a set of truss structures and its simplified formulaShuoyu Wang | 251Investigation of damage condition of Chinese ancient timber buildingsShujie Qin, Na Yang | 300Research on dynamic performance of combined type retaining dam under impact loadXiuli Wang, Fangfang Gao , Yifan Zhu |

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| **18:25-18:50** | 132Improvement of requirements for modeling snowdrift in wind tunnel based on the measurements in Harbin Qingwen Zhang, Guolong Zhang , and Feng Fan | 82Numerical simulation of residual stress in cold-formed Sigma beamsFeiliang Wang, Jian Yang | 250Study on model of strain and temperature for Tibetan ancient building based on long-term monitoring dataXiaobin Bai, Na Yang,Qingshan Yang | 263Experimental study on dynamic response of single- layer reticulated shell structure subjected to inclined impact loadsXiuli Wang, Xiaotong Ma, Yifan Zhu |
| 163Field measurements of the snow distribution model on typical roofsLei Zhao , Zhixiang Yu, Shichun Zhao, Fu Zhu, Chun Liu | 64The performance of RCS frame structures considering the slab spatial composite effectWei Li, Rui He, Linzhu Sun, Kejia Yang, Junliang Zhao | 212Vibration serviceability and passive vibration control of flexible steel staircase due to walking considering crowd- structure interaction Qiankun Zhu , Kai Chen, Nana Nan , Qiong Zhang | 265Seismic analysis of double- layer spherical lattice shells with MSFB isolatorsPeng Zhuang, Wenting Wang and Suduo Xue |
| 321Experimental research on strength of bridge steel after high temperatureWenliang Lu, Yu Tian, Zhaojia Liang, Weichao Li |  |  | 237Behavior of double fish plate connector between steel plate shear wall structure and steel frameGuochang Li, Zengmei Qiu and Zhijian Yang |
| **19:00-20:30** | **Dinner (buffet)** | **Dining Hall, 1st Floor** |

 **16**

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| **Friday Oct 14** | **Session 29****Meeting Room 20, 3rd Floor** Concrete Structures & InfrastructuresChairs:Xinqun Zhu and Y.J. Wang Secretary:Zhengyuan HUANG / 18811126609 | **Session 30****Meeting Room 6, 2nd Floor** Concrete Structures & InfrastructuresChairs:Gangbing Song and Ji Dang Secretary:Junxiao HE / 18813093455 | **Session 31****Meeting Room 5, 2nd Floor** Steel Structures and Metal StructuresChairs:Zhong Tao and Xuhui He Secretary:Lei LIU / 13811633951 | **Session 32****Meeting Room 3, 2nd Floor** High Performance Material and Smart MaterialChairs:Qin Fang and Zhaohui Lu Secretary:Danyang DAI / 13810202534 |
| **16:30-16:50** | 41 (invited)Recent studies on energy absorption of thin-walled structuresGuoxing Lu | 40 (invited)Damage identification in real- life problems: beam crack and implicationsYong Lu | 38 (invited)Dynamic approaches to ‘cross- section analysis’ within the GBT formulationGiuseppe Piccardo | 52 (invited)Basic creep of cylinders made of normal-strength demolished concrete blocks and high- strength fresh concreteBo Wu |
| **16:50-17:10** | Stability and deformation of timber laminated structures under the influence of static and dynamic loadsSergey Deordiev | 348Experimental study on shear performance of partially precast steel reinforced concrete beams Yong Yang , Yunlong Yu, Yicong Xue,Yang Yang, Yongjian Shao | 180Damage detection of shear link conditions with multi-type measurementsJun Li, Hong Hao | 349 (invited)Study on improving the physical properties of recycled coarse aggregate by using pre- homogeneity techniquesFeng Xing |
| **17:10-17:25** | 341Experimental study on bond behavior between plain reinforcing bars and concrete Guohua Xing, Rongchen Xiang, Boquan Liu | 345Seismic behavior of interior beam-column joints with high- strength lightweight aggregate concreteTao Wu, Hui Wei, and Xi Liu | 86Experimental study on mechanical behavior of strengthend steel tubular trusses Wenwei Yang, Nina Gao , Guoqing Zhang | 330Experimental study on a new buckling-restrained brace Chunlin Wang, Li Zhou ,Ye Liu |
| **17:25-17:40** | 343Seismic damage prediction of reinforced concrete columns Shuijing Xiao, Longhe Xu, Xiao Lu | 298Study on dynamic interaction between soil and group of high- rise buildingsPeizhen Li , Jinping Yang , Xilin Lü | 89Equivalent seismic performance optimization of steel structures based on nonlinear damage analysis Yang Lü , Longhe Xu , Zgongxian Li | 337Study on nanomechanical properties of cement paste using nanoindentation Wengui Li , Zhiyu Luo, Wen Hui Duan , Surendra P. Shah |
| **17:40-17:55** | 340Experimental research on failure mode of precast segmental members with epoxied jointsWenliang Lu, Weichao Li, Yu Tian, and Zhaojia Liang | 346Study on seismic performance of RC rectangular hollow pier based on dynamic analysis Yanli Shen, Yangjuan Zhang, Zhuqing Wang | 83Finite element analysis on overall buckling of TU1 oxygen free copper tubular columns under axial compression Tianxiong Zhang, Yuanqing Wang, Zhihua Chen, Zongyi Wang | 325Casting method for vertical structural members made of demolished concrete lumps and fresh concreteBo Wu, Lu Liu |
| **17:55-18:10** | 301Research on quantified performance index of rectangular cross-section subway underground structure Dongyang Wang, Jingbo Liu, Wenhui Wang | 338Development of a new precast reinforced concrete shear wall systemJian Sun, Hongxing Qiu, Yuan Yang, Yong Lu | 84Theoretical deformation solution of i-section beam with longitudinally variable thickness flanges under single point loadingYuanqing Wang, Xiaoling Liu, Yuyin Wang, Ming Liu, Yongjiu Shi, Yi Sui | 327Experimental investigation on fatigue properties of Q345QD and its fatigue fracture mechanismDanfeng Jia, Yuanqing Wang, Jia Cui, Xiaowei Liao, Yan Zhou |
| **18:10-18:25** | 339Analysis of twenty layer coupled shear wall in ground fracture areaZhenqi Xu , Xinxiao Chen , Pengju Cui | 302Design and construction in the project of DN630 water supply pipeline directional drilling crossing the Huaihe river Xuan Zhu , Shanjun Lei | 191Experimental axial force identification based on modified Timoshenko beam theory Dongsheng Li, Yongqiang Yuan, Kunpeng Li,Hongnan Li | 332A novel shear wall system with damage controllability for high rise buildingsXiaoting Wang, Zhe Qu, Tao Wang, and Fuyuan Deng |

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| **18:25-18:50** | 344Design optimization and seismic analysis of shear wall structure based on shear wall area ratioHongwei Ma, Zibin Huang and Jiaxin Guo | 313Fatigue crack position judgment in steel bridge deck weld based on ultrasonic methodZhongqiu Fu , Bohai Ji , Yuanzhou Zhiyuan, Faxiang Xie | 87Cyclic testing of multi- stiffeners low yield point steel plate shear wallsMinglan Ge, Jiping Hao, Chen Fang | 331Local bond performance of rebar embedded in steel- polypropylene hybrid fiber reinforced concrete under monotonic and cyclic loading Yin Chi, Lihua Xu, Le Huang |
| 347Assessment of investment risk in international contruction projectJin Liu | 117Analysis of collision between adjacent oscillators based on dimensional analysis method Shan Jiang, Chunwei Zhang, Ben Mou | 166Analysis of wind-induced vibration response on tower consisted of steel tubes and tangle steelsXiaolei Zhang ,Yanzhong Ju | 326Splitting properties of fiber and nanoparticles reinforced concrete after exposure to elevated temperaturesLi han, Gao Danying |
| 270New technology of the rigid frame bridge reinforcement with cable stayed systems Qifeng Chen, Tianzhi Hao, Baojun Li, Lei Zhang | 215Finite element analysis of innovative coupled shear wall system with replaceable energy dissipation coupling beam Jianping Han and Yandi Hu | 181Stress evaluation for the complex joint based on strain measurementsWei Lu, Jiayi Zhu and Jun Teng | 329Bond-slip behavior of steel fibre in UHPC under elevated temperatureXiangwei Liang, Chengqing Wu |
| **19:00-20:30** | **Dinner (buffet)** | **Dining Hall, 1st Floor** |

 **18**

**Keynotes and Closing Ceremony**

**Hall A+B, 2nd Floor**

 **19**

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| **Saturday. Oct 15, 2016** |
| **Keynote presentations****Chairs: Prof. Yukio Tamura and Prof. Xinzhong Chen**Secretary: Xiaoda XU / 18210621559 |
| **8:10-8:40** | **Xuhong ZHOU** | Behavior of slender circular tubed-reinforced-concrete columns subjected to eccentric compression |
| **8:40-9:10** | **Ahsan KAREEM** | A transition from time or frequency domain to time-frequency domain forestimating non-synoptic wind load effects |
| **9:10-9:40** | **Zhengqing CHEN** | Some new thoughts on vibration and its countermeasures for super long- span suspension bridges |
| **9:40-10:10** | **Ian BUCKLE** | Stability of elastomeric seismic isolation systems |
| **10:10-10:30** | Coffee break |
| **Keynote presentations****Chairs: Prof. Xilin Lü and Prof. Xuhong Zhou**Secretary: Xiaoda XU / 18210621559 |
| **10:30-11:00** | **Yeongbin YANG** | Joint equilibrium in geometric nonlinear analysis of framed structures |
| **11:00-11:30** | **Billie F. SPENCER, Jr.** | Monitoring railroad bridges using UAVs |
| **11:30-12:00** | **Closing Ceremony Chair: Qingshan YANG** |
| **12:00-14:00** | Lunch (buffet) | Dining Hall, 1st Floor |
| **14:00-** | Leaving |

##### **Technical Tour**

技术考察

Dear delegates,

We are honored to invite you to have a visit to the wind-tunnel laboratory of Beijing Jiaotong University at 14:20 on the afternoon of Oct. 15.

If you are interested in this visit, please sign up on the registration desk on the Kuntai hotel lobby on Oct. 13 and 14. Please gather at hotel lobby at 14:20 on Oct.15. The vehicle will leave at 14:30.

If you have any questions, please contact Miss Haoyue CHU, +86 15810161056. Thank you so much for your great support to ISSE.

Regards,

**ISSE-14 Organizing Committee**

各位老师、同学： 您好！

我们很荣幸地邀请您于 2016 年 10 月 15 日下午 14：20 对北京交通大学风洞实验室进行考察。 如果您对此次考察有兴趣，请于 13 日、14 日于酒店大厅 ISSE 报到处填写报名表。 请报名的老师、同学于 15 日下午 14:20 在酒店大厅集合，14:30 准时出发。 如您有任何疑问，请联系褚浩玥 :15810161056，感谢您对国际风工程研讨会的大力支持。 祝好！

ISSE-14 组委会

##### 【Background links】

Beijing’s key laboratory of Structural Wind Engineering and Urban Wind Environment has taken the lead for evaluation, assessment and approval of Beijing top laboratories, with outstanding research strength and quality, with a mission to carry out frontier research to meet the urgent social, scientific and economic needs. Our Beijing’s key laboratory are equipped with a close- circuit wind tunnel and an open-circuit wind tunnel, and advanced electronic pressure measurement systems, equipment control systems, structural vibration measurement system and PIV systems. As a part of the national "985 Project" advantage innovation platform, our lab focuses on buildings, bridges wind loading analysis and wind environment tests, as well as other industrial aerodynamics wind-induced effects problems.

 **20**

#### **Wind Tunnel Lab of BJTU**



<http://windeng.bjtu.edu.cn/index.htm>

【会议期间天气情况 /**Weather** 】

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| 10 月 12 日 / 周三 | 10 月 13 日 / 周四 | 10 月 14 日 / 周五 | 10 月 15 日 / 周六 |
| 白天：多云 | 夜间：多云 | 白天：多云 | 夜间：多云 | 白天：多云 | 夜间：多云 | 白天：多云 | 夜间：多云 |
| 高温：26℃ 1012hPa 低温：16℃ | 高温：27℃ 1015hPa 低温：17℃ | 高温：27℃ 1009hPa 低温：19℃ | 高温：24℃ 1007hPa 低温：16℃ |
| 风向：无持续风向 风力：微风 10％ | 风向：无持续风向 风力：微风 59％ | 风向：无持续风向 风力：微风 85％ | 风向：无持续风向 风力：微风 100％ |

 **21**

 **22**

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