## IV PBD - Beijing, China, 15-17 July 2022



- Over 400 delegates (26 countries, online and onsite)
- 14 Keynote Lectures
- 8th Ishihara Lecture
- 1 Young Researcher Award Lecture
- 25 Invited Theme Lectures
- 187 Regular Papers
- Hosted by the <u>Chinese Institution</u> of <u>Soil Mechanics and</u> <u>Geotechnical Engineering - China</u> <u>Civil Engineering Society | |</u> <u>CISMGE-CCES</u>
- Conference Honorary Chair: Jian-Min Zhang
- Conference Chair: Lanmin Wang
- Conference Secretary: Rui Wang



Prof. Lanmin Wang chairing the opening ceremony of PBD-IV



Dr. Wang Kun, Vice Administrator of China Earthquake Administration delivering his welcoming speech at the Opening Ceremony



Opening ceremony of PBD-IV. Due to COVID-19-related restrictions, the conference was in a hybrid mode with some Chinese delegates being able to attend the opening day of the conference in person.

The 4th International Conference on Performance-based Design in Earthquake Geotechnical Engineering (PBD-IV) was held hybrid mode in Beijing, between the 15th and 17th July 2022, with the Opening Ceremony held at The Empark Grand Hotel in Beijing.

PBD-IV was originally planned to be held July, 2021 in Beijing. Unfortunately, the outbreak of COVID-19 in 2020 forced the PBD-IV conference to be postponed for one year.

The conference was hosted by CISMGE-CCES (the Chinese Institution of Soil Mechanics and Geotechnical Engineering - China Civil Engineering Society), supported by the China Earthquake Administration (CAE), and co-hosted by Tsinghua University and relevant institutions, with Professor Jian-Min Zhang serving as the Conference Honorary Chair, Professor Lanmin Wang as the Conference Chair, and Professor Rui Wang as the Conference Secretary.

The local Organizing Committee managed the technical program, as well as the reviewing and editorial processes of the proceedings, with tremendous support from the TC Chair, Prof. Misko Cubrinovski, the past Conference Chairs and members of the Steering and Scientific Committees.

## **Technical Programme**

As in the previous editions, the conference provided an open forum for delegates to interact with their international colleagues and advance performance-based design research and practices for earthquake geotechnical engineering, through plenary and parallel sessions.

The technical program included the Ishihara Lecture, Top Prospects Forum, 15 keynote lectures, two Young Researcher Award Lectures, 34 invited theme lectures, and 176 regular presentations from 26 countries and regions.

The plenary sessions hosted 3 Special Lectures, namely:

The 8th Ishihara Lecture, by Prof. Misko Cubrinovski (University of Canterbury, New Zealand) on Holistic Evaluation of Liquefaction Problems.

The Top Prospects Forum included lectures by Prof. Kenji Ishihara and Prof. Izzat Idriss.

The TC203 Young Researcher Award Lecture, by Prof. Rui Wang (Tsinghua University, China) on Large post-liquefaction shear deformation: from microscale mechanism to constitutive modeling.

15 plenary Keynote Lectures were delivered by Prof. Yunmin Chen, Ross Boulanger, M. Hesham El Naggar, Amir Kaynia, Mitsu Okamura, Jonathan Bray, Maosong Huang, Kenji Ishihara, Ikuo Towhata, Giulia Viggiani, Francesco Silvestri, Ramon Verdugo, Steven Kramer, Susumu Yasuda, Lanmin Wang, and Kyriazis Pitilakis.

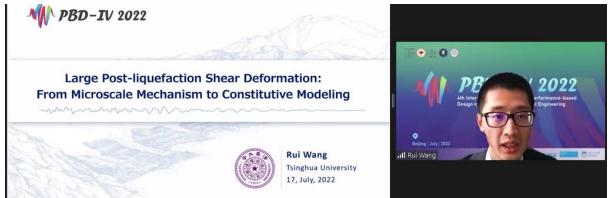


Prof Misko Cubrinovski (top right) while delivering the Ishihara Lecture, with Professor Ross W Boulanger (bottom) and Professor Lanmin Wang (top left) presenting the Lecture certificate online and in person.





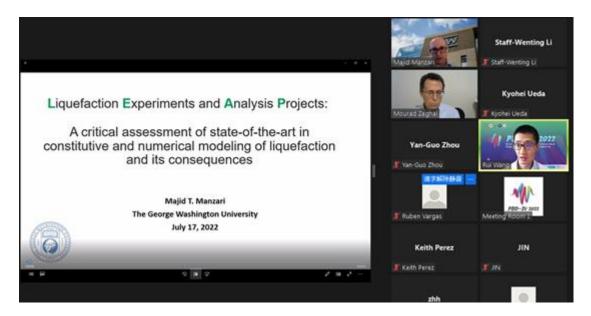
Professors Ishihara (left) and Idriss (right) delivering their Top Prospects Forum Lecture



Prof. Rui Wang while delivering the TC203 Young Researcher Award Lecture

34 invited theme lectures led the opening of 32 Special and Parallel Sessions.

6 Special Sessions were proposed and convened by international leading experts, supported by members of the local Organizing Committee, including: (1) S1: Liquefaction experiment and analysis projects (LEAP); (2) S2: Liquefaction Database; (3) S3: Embankment Dams; (4) S4: Earthquake Disaster Risk of Special Soil Sites and Engineering Seismic Design; (5) S5: Special Session on Soil Dynamic Properties at Micro-scale: From Small Strain Wave Propagation to Large Strain Liquefaction; (6) S6: Underground Structures.



Prof. Majid Manzari organizing the Special Session on Liquefaction Experiments and Analysis Projects (LEAP).

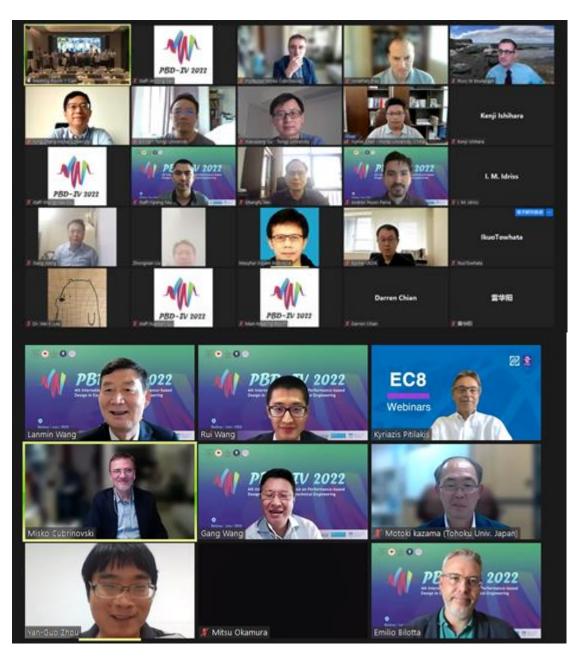
Most of the parallel Regular Sessions were opened by a Theme Lecture on the relevant topic, followed by the presentation of selected contributions and an open discussion.

The electronic volume of the proceedings, including 227 technical papers for a total of 2405 pages, has been indexed by the Scopus database. About one year after the conference, all published papers will be made freely downloadable through the ISSMGE library.

The TC203 Assembly was also held during the conference via virtual Zoom meeting.



Professor Motoki Kazama inviting everyone to the 8ICEGE conference to be held in Osaka, Japan.



Group Photos from the Closing Ceremony