

**Annual General Meeting Report of  
Hong Kong Society of Theoretical and Applied Mechanics  
December 5, 2020**

## **1 Main Activities (Since April 2019)**

### **1.1 Distinguished Lectures**

Due to the COVID-19 pandemic, there was only one distinguished lecture (online) before the HKSTAM annual conference 2020. Therefore, a total of 6 Distinguished Lectures were organized in this year.

The Distinguished Lecture organized before the HKSTAM conference is:

1. Distinguished Lecture by Prof. Jun Yang, Department of Civil Engineering, The University of Hong Kong, on 15 Sep 2020.

#### **1.1.1 Distinguished Lecture: Towards a novel method for liquefaction evaluation of granular soils (Prof. Jun Yang)**

Prof. Jun Yang is Professor and Associate Head of the Department of Civil Engineering, the University of Hong Kong (HKU). His research spans a broad range of topics in soil mechanics, geotechnics and earthquake engineering, with particular interest in the mechanics and physics of geomaterials via laboratory testing and constitutive modeling. The seminar started at 10:00am on 15 Sep 2020 (Tuesday) through Zoom.

The seminar was chaired by Ir Prof Paul Lam, and there were **165 participants**. The seminar was well organized and informative. There were a lot of discussions after the presentation.

The lecture is mainly about the complex phenomenon of liquefaction. While some aspects of liquefaction have been well understood through experimental and numerical studies over the past decades, many others, however, remain confusing, controversial or mysterious. Following a brief overview of the subject, this distinguished lecture introduced a novel method for liquefaction evaluation. The method is based on measurements of shear wave velocity and is developed from a comprehensive experimental program in conjunction with a theoretical framework. Figure 1 shows a screen capture the seminar through Zoom.

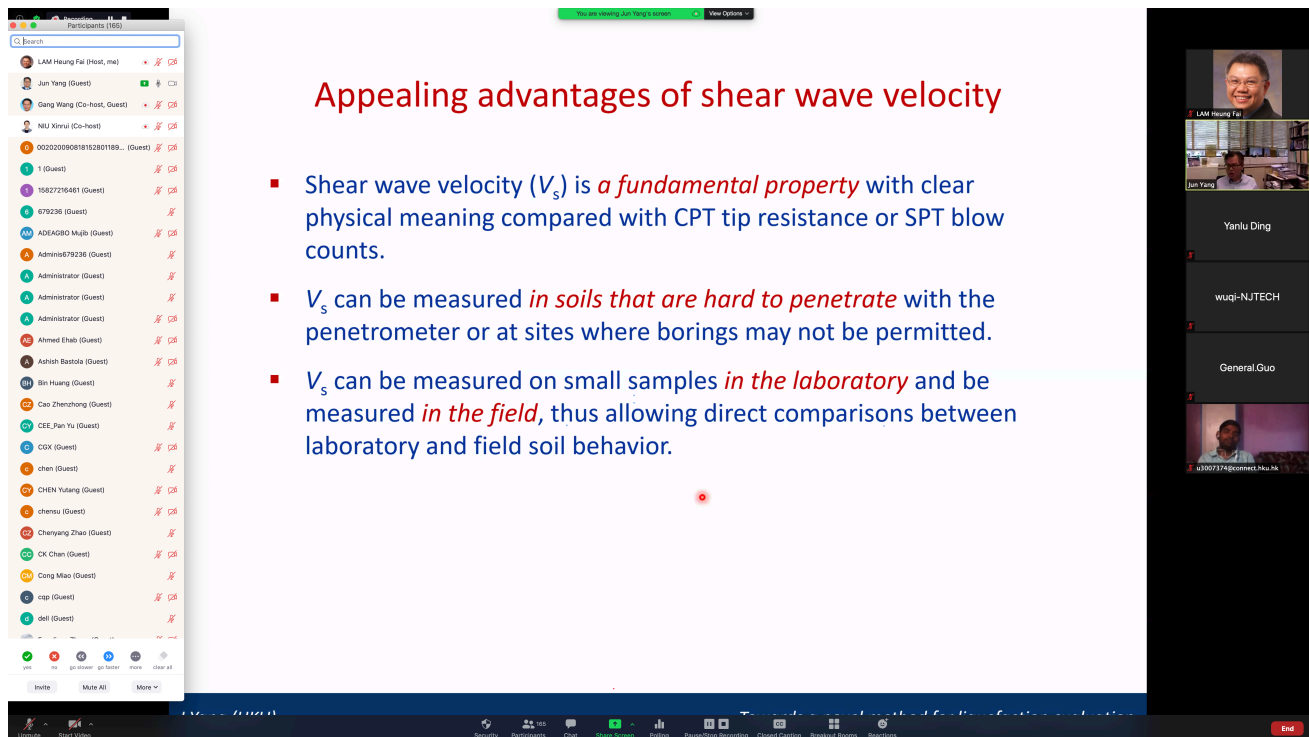


Figure 1: Distinguished Lecture by Prof Jun Yang.

## 1.2 HKSTAM Annual Conference

The 24<sup>th</sup> Annual Conference of HKSTAM 2020 was organized in conjunction with the 16<sup>th</sup> Shanghai–Hong Kong Forum on Mechanics and Its Application. Under the original plan, the conference should be hosted in the University of Macau on 25 April 2020. With the tremendous effort from Prof Hannah ZHOU, EC member of HKSTAM and Head of Department of Civil and Environmental Engineering, University of Macau, the organization work had been very much completed (all venues were confirmed; lunch and banquet restaurants were all booked). However, the conference on 25 April 2020 was cancelled due to the COVID-19 pandemic. Referring to the email discussions among EC members, the local organization committee decided to postpone the conference in Macau to August 2020. Unfortunately, the pandemic continued in August 2020, and the local organizing committee (after consulting the Shanghai STAM) decided to organize the conference in an online manner (through Zoom) on 5 December 2020. The conference aims to provide a platform for all scientists, engineers, and mathematicians working on mechanics and related areas to share, communicate and exchange ideas, and to enhance co-operations within relevant parties.

In the conference, there were 5 Distinguish Lectures by Prof. Ming ZHANG from The Hong Kong Polytechnic University, Prof. Quan ZHOU from Shanghai University, Prof. Zhen-Yu YIN from The Hong Kong Polytechnic University, Prof. Fan XU from Fudan University, and Prof. Gang WANG from The Hong Kong University of Science and Technology. The conference also contains 10 parallel sessions with 55 presentations; 20 from Shanghai; 6 from Macau; and 29 from Hong Kong.

## 1.3 International Events

### 1.3.1 上海力学大会2019'暨上海市力学学会成立60周年庆祝大会

A HKSTAM delegation (Ir Prof Paul Lam, Prof Li Cheng) joined the 上海力学大会2019'暨上海市力学学会成立60周年庆祝大会 on 26 May 2019, 上海科学会堂一号楼卢浮厅, Shanghai. Ir Prof Paul Lam gave one of

the opening addresses (開幕式) in this conference on behalf of the HKSTAM (see Figure 2). Figure 3 shows the souvenir exchange between HKSTAM and JSSTAM. Prof Li Cheng gave an invited seminar (特邀報告) under the topic of “Recent Advances in Acoustic Black Hole Research”.



Figure 2: Opening address in the 上海力学大会2019 by Ir Prof Paul Lam.



Figure 3: The invited seminar by Prof Li Cheng.

### 1.3.2 江苏力学青年论坛'2020 暨 第十六届苏港力学及其应用论坛

The 江苏力学青年论坛' 2020 暨 第十六届苏港力学及其应用论坛 was hosted on 8 Nov 2020 in 江苏省南京市江宁区佛城西路8号 河海大学博学楼一楼报告厅. Ir Prof Paul Lam was invited to give the first invited seminar (论坛邀请报告) on behalf of HKSTAM under the topic of "The use of Markov chain Monte Carlo simulation in the damage detection of railway ballast".



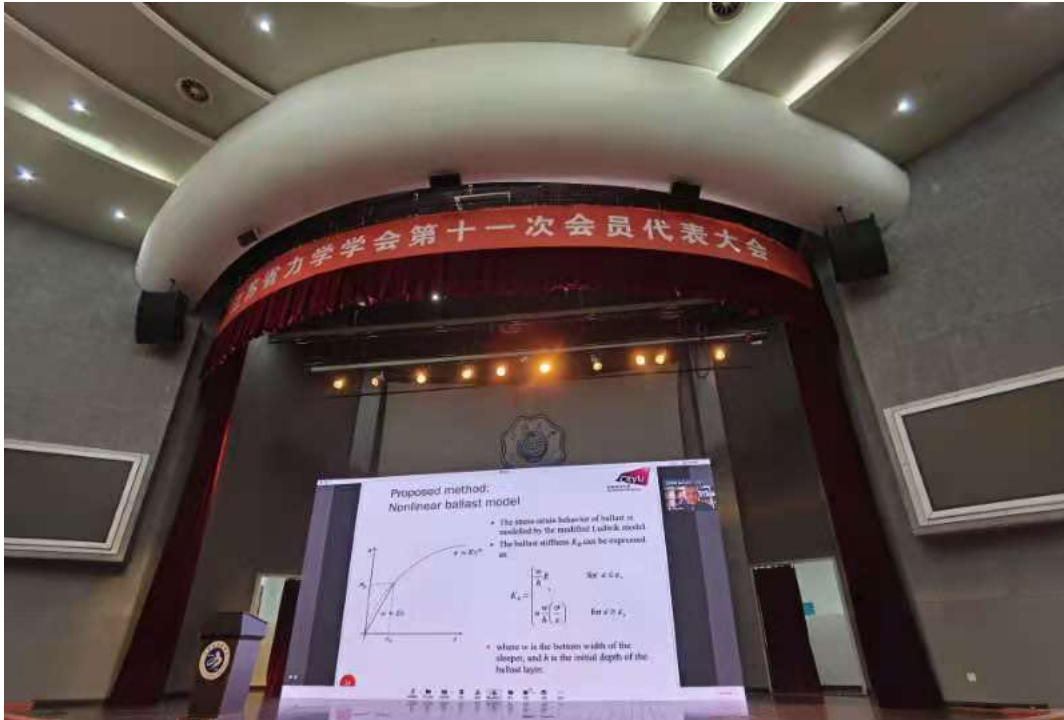


Figure 4: The invited seminar by Ir Prof Paul Lam through Tencent (online).

## 2 Current Status of HKSTAM

HKSTAM has 150 members including 40 life members. In this year, HKSTAM has 12 institutional members. They are:

1. Department of Architecture and Civil Engineering, City University of Hong Kong
2. Department of Mathematics, City University of Hong Kong
3. Department of Mechanical and Biomedical Engineering, City University of Hong Kong
4. Department of Physics and Materials Science, City University of Hong Kong
5. Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University
6. Department of Mechanical Engineering, The Hong Kong Polytechnic University
7. Department of Applied Mathematics, The Hong Kong Polytechnic University
8. Department of Mechanical Engineering, The University of Hong Kong
9. Department of Civil and Environmental Engineering, The Hong Kong University of Science and Technology
10. Department of Mechanical and Aerospace Engineering, The Hong Kong University of Science and Technology
11. Department of Civil and Environmental Engineering, University of Macau
12. Department of Electromechanical Engineering, University of Macau

## 3 Plan for Next Year

1. Prof Wang Gang would be the new president of HKSTAM. With his leadership, it was believed that HKSTAM would continue to serve as a platform for research collaborations among academics and engineers from China, Hong Kong and Macau.

## 4 Executive Committee of HKSTAM for 2019-2020

The table below shows the Executive Committee of HKSTAM for 2019 to 2020.

President	Dr. Paul H. F. LAM (林向暉), Department of Architecture and Civil Engineering, City University of Hong Kong (Email: paullam@cityu.edu.hk, Tel: 34427303)
Vice President	Dr. Gang WANG (王剛), Department of Civil and Environmental Engineering, Hong Kong University of Science and Technology (Email: gwang@ust.hk, Tel: 23587161)
Secretary	Dr. Xinrui NIU (牛鑫瑞), Department of Mechanical and Biomedical Engineering, City University of Hong Kong (Email: xinrui.niu@cityu.edu.hk, Tel: 34428432)
Treasurer	Dr. Shuhuai YAO (姚舒懷), Department of Mechanical Engineering, Hong Kong University of Science and Technology (Email: meshyao@ust.hk, Tel: 23587205)
Immediate Past President	Prof. Li CHENG (成利), Department of Mechanical Engineering, The Hong Kong Polytechnic University (Email: mmlcheng@polyu.edu.hk, Tel: 27666769)
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IUTAM Representative	Prof. Q. P. SUN (孫慶平), Department of Mechanical Engineering, Hong Kong University of Science and Technology (Email: meqpsun@ust.hk, Tel: 2358 8655)

## 5 New Executive Committee of HKSTAM for 2020-2022

The table below shows the Executive Committee of HKSTAM for 2020 to 2022.

President	Dr. Gang WANG (王剛), Department of Civil and Environmental Engineering, Hong Kong University of Science and Technology (Email: gwan@ust.hk, Tel: 23587161)
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Composed by Heung-fai Lam

President of HKSTAM, Hong Kong SAR

5 December 2020