May 27-30, 2018, Shanghai, China

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## **WORKSHOP 2**

## GeoShanghai 2018 ACTUE-Bochum-Cambridge-Tongji Joint Seminar

WH Ming Hotel, 777 Jiamusi Road, Shanghai (小南国花园酒店,佳木斯路777号) May 29, 2018, Shanghai, China

Ruby Ballroom A (third floor)

#### Introduction

This joint seminar is organized by Tongji University, Cambridge University, Ruhr-University of Bochum (RUB) and Austria-China Research Centre on Tunnel and Underground Engineering (ACTUE). The joint seminar series is held every year in China and Europe alternately. This year, the joint seminar will be held on 29th May in Shanghai as a special session of Geoshanghai 2018. The joint seminar is focused on Recent Advances in Tunneling and Underground Space Research.

### Organizer

The organizer of the joint seminar is as follows (in alphabetical order):

Special Session Organizers

Prof. Yongchang Cai (Tongji University)

Prof. Wenqi Ding (Tongji University)

Prof. Robert Galler (University of Leoben)

Prof. Günther Meschke (Ruhr University Bochum)

Prof. Helmut Schweiger (Graz University of Technology)

Prof. Kenichi Soga (The University of Cambridge)

Prof. Markus Thewes (Ruhr University Bochum)

Prof. Dongmei Zhang (Tongji University)







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# Program of ACTUE-Bochum-Cambridge-Tongji Joint Seminar

	(Tuesday)	
8:30-8:40	Opening Speech	Günther Meschke Dongmei Zhang
	Ground Surface Deformation Analysis of Quasi Rectangular EPB Shield Tunneling	Xi Jiang
9 00-9 20	Numerical simulation with uncertain data to support real-time TBM steering	Ba Trung CAO
9:20-9:40	A new form of longitudinal joint of large cross-section segmental tunnel linings	Chenjie Gong
9:40-10:00	A novel simulation framework for synchronous grouting in shield tunnels	Yafei Qiao
	Coffee Break (10:00 to 10:30)	
	Technical Session (10:30 to 12:00): Chair: Haitao Yu	
10:30-10:50	Data Analysis of Shield Tunnel Deformation from Real-time Monitoring with Wireless Sensing Network	Xin Xie
10 50-11 10	A Prototype Load Test on Fracture and Damage Properties of Cracked Shield Tunnel Lining Segments	Longgang Tian
11 16-11 30	Numerical Analysis of Influence of Ground Variation on Deformation and Internal Forces of Large Diameter Shield Tunnel	Jingkang Shi
11:30-11:50	Evolution of frost penetration and ablation in the surrounding rock of cold region tunnels	Zhitao Lv
11:50-12:00	Discussion	
	Lunch(12:00 to 13:30) ( Diamond Bailroom C, ADD Restaurant)  Technical Session (13:30 to 15:30): Chair: Yaodong Xue	
13 30-13 50	Reliability-based Analysis of Segmental Linings for Underwater Shield Tunnels	Youwen Wang
13.50-14.10	Influence of aspect ratio of the exhaust opening on smoke propagation in a large cross-section tunnel	Yuxin Zhang
14:10-14:30	Parametric Study on Stability of Tunneling Excavation Face via Fluid-Solid Coupling Simulation	Jinlong Li
14.30-14.50	Numerical Validation of a New Testing Setup for Mechanical Test of Tunnel Lining Joints	Wei Liu
14:50-15:10	Application of Finite Cell Method to tunnel engineering simulation	Hoang Giang BU
15:10-15:30	Probabilistic analysis of responses of tunnel under the surface surcharge considering soil vertical spatial variability	Jinzhang Zhang
	Coffee Break (15:30 to 16:00)	
	Technical Session (16:00 to 18:00): Chair: Dongming Zhang	
	Shearing behavior of segmental joints of large-diameter Shield Tunnel	Jie Liu
16:20-16:40	Mechanized excavation in Soft and Hard ground conditions	Sahir Nawaz BUT
16 40-17 00	Experimental and Numerical Study on Longitudinal Axial Force and Deformation of Shield Tunnel	Xiaozhou Zhou
17.00-17.20	Dynamic response of tunnel lining to resonance rubblization induced vibration in pavement renew	Maozhu Peng
17:20-17:48	Numerical Study on High Stiffness Segmental Joints of Shield Tunnels	Long Zhou
17-40-18-00	Discussion and Closing Speech	SHEET STREET