

**Professor Qing ZHOU**  
Department of Automotive Engineering  
Tsinghua University  
Beijing, 100084, China



Office phone: 86-10-6278-9421  
Mobile phone: 86-139-1186-4787  
Email: zhouqing@tsinghua.edu.cn

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September 21, 2017

## **Second Announcement**

### **“Symposium of Impact Mechanics and Crash Protection (IMCP)” Beijing, China, October 19-20, 2017**

A special two-days symposium will be organized to celebrate 10 years of close collaboration between the Automotive Crash Lab at Tsinghua University and the Impact and Crashworthiness Lab (ICL) at MIT. The symposium will be held in Beijing, China on October 19-20, 2017. Both labs are recognized as world leaders in crash safety of batteries for Electric Vehicles, vehicle crash safety and human body impact protection, and characterization and modeling of structural and material failures under impact loading for lightweight design and FE simulation. Both labs have received substantial industrial support through individual contracts and/or industrial consortia.

Over the past ten years we have witnessed an amazing progress in the application of ultra high strength steels and lightweight materials and an exponential growth of the electric vehicle market. The Symposium will offer a unique opportunity to learn about the new advances from two teams that are very much behind these new developments.

We plan to organize about 15 invited talks, with speakers from all over the world. The agenda of the symposium is attached. The attendance in the Symposium is by invitation only. Interested participants are requested to fill the registration forms. Individual invitation will then be sent by the secretary of the Symposium Juner Zhu ([zhujuner@mit.edu](mailto:zhujuner@mit.edu)). There will be no participation fee.

I look forward to welcome the representative of the world-wide industry to the symposium.

Prof. Qing Zhou, Chairman of Symposium  
Prof. Yong Xia, Secretariat of Symposium  
Tsinghua University



## Agenda of the Symposium of Impact Mechanics and Crash Protection (IMCP)

Thursday, October 19, 2017

9:30 am – 10:30 am	Registration and reception
10:30 am – 11:00 am	Welcome & Opening remarks: My perspective on Tom's research during the past 50 years <i>Prof. Qing Zhou, Tsinghua University</i>
11:00 am – 11:30 am	Keynote address: Road from crashworthiness to fracture, in retrospect <i>Prof. Tomasz Wierzbicki, MIT</i>
11:30 am – 12:00 pm	Invited talk: Macro element methodology for crash – from theory to industrial applications <i>Mrs. Agata Abramowicz-Sokoll, Impact Design Europe</i>
12:00 pm – 13:30 pm	Catered-in lunch Invited talk: Fracture of additive manufacturing material – Sandia Fracture Challenge III <i>Mr. Thomas Tancogne-Dejean, MIT</i>
13:30 pm – 14:00 pm	Invited talk: Collision and rebound of moving structures on solid wall <i>Prof. Tongxi Yu, HKUST</i>
14:00 pm – 14:30 pm	Invited talk: Dynamic behavior and crashworthiness design of cellular materials and structures <i>Prof. Jilin Yu, University of Science and Technology of China</i>
14:30 pm – 15:00 pm	Invited talk: Additively-manufactured cellular solids for high specific energy absorption <i>Prof. Dirk Mohr, ETH Zürich</i>
15:00 pm – 15:30 pm	Coffee break
15:30 pm – 15:50 pm	Invited talk: Design to reduce the risk of impact and crash in marine sector <i>Prof. Ling Zhu, Wuhan University of Technology</i>
15:50 pm – 16:10 pm	Invited talk: To be determined <i>Prof. Yulong Li, Northwestern Polytechnical University</i>
16:10 pm – 16:30 pm	Invited talk: Vehicle safety and crashworthiness design and its implication for product development process <i>Prof. Sigit Santosa, Bandung Institute of Technology</i>
16:30 pm – 16:50 pm	Invited talk: Crash safety modeling and short circuit detection of lithium-ion batteries <i>Prof. Elham Sahraei, George Mason University</i>
16:50 pm – 17:10 pm	Invited talk: Failure in lithium-ion batteries under transverse indentation loading <i>Dr. Seung Hyun Chung, LG Chemistry</i>
17:10 pm – 17:30 pm	Invited talk: Mechanical failure of battery modules under impact loading <i>Prof. Yong Xia, Tsinghua University</i>

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Thursday, October 19, 2017

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18:30 pm – 20:30 pm      Banquet  
Keynote address: What you might not know about Tom  
*Mrs. Margaret Wierzbicki*  
Invited talk by *Prof. Bo Cerup-Simonsen*

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Friday, October 20, 2017

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10:30 am – 10:50 am      Invited talk: Fiber-based modeling and biomechanical response of human ankle ligaments  
– in situ  
*Prof. Bingbing Nie, Tsinghua University*

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10:50 am – 11:10 am      Invited talk: High strain rate tensile fracture and fragmentation of ductile and brittle rings  
expanded under pressured liquid  
*Prof. Fenghua Zhou, Ningbo University*

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11:10 am – 11:30 am      Invited talk: Challenges in modeling dynamic fracture in modern pipeline steels  
*Prof. Dr.-Ing. Aida Nonn, OTH Regensburg*

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11:30 am – 11:50 am      Invited talk: Ductile damage and fracture under non-proportional and impact loadings  
*Dr.-Ing. Junhe Lian, RWTH Aachen University*

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11:50 am – 12:10 pm      Invited talk: On the Lode angle dependent anisotropic plasticity and fracture of aluminum  
alloy sheets  
*Prof. Yuanli Bai, University of Central Florida*

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12:30 pm – 15:30 am      Catered-in lunch and extended reception

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## Registration form

Name (First name, Family name)	
Organization	
Title (Prof., Dr., Mr., Mrs., Miss, others please specify)	
Email address	
Delegate dietary requirements (Vegetarian, Vegan, others please specify )	

1. Please send the registration form back to Juner Zhu ([zhujuner@mit.edu](mailto:zhujuner@mit.edu)) before October 9.
2. Please make your hotel reservation as soon as possible. Rush hour traffic in Beijing is hassle, and we suggest you booking a hotel near Tsinghua University.