THE FIRST INTERNATIONAL CONFERENCE ON
MACHINE LEARNING AND PHYSICS
第一届“机器学习和物理学”国际会议

清華大學 Tsinghua University

July 4 - 6, 2018, Beijing, China

Insitute for Advanced Study, Tsinghua University
（清华大学高等研究院 主办）

Conference Website and Registration :
http: // mlphys2018.csp.escience.cn

INVITED SPEAKERS
(incomplete list)

Fakher F. Assaad, Wuerzburg
Hans J. Briegel, Innsbruck
Kieron Burke, UC Irvine
Giuseppe Carleo, Flatiron Institute
Gábor Csányi, Cambridge
Jim Halverson, Northeastern
José Miguel Hernández-Lobato, Cambridge
Eun-Ah Kim, Cornell
Yoav Levine, Hebrew University of Jerusalem
Evert van Nieuwenburg, Caltech
Daniel Roberts, Facebook AI Research
Matthias Rupp, FHI Berlin
Lexing Ying, Stanford

ORGANIZATION COMMITTEE

Yi-Zhuang You (Harvard / UCSD)
Lei Wang (IoP, CAS)
Bei Zeng (Waterloo / Guelph)
Hui Zhai (Tsinghua)

SCIENTIFIC COORDINATOR

Liang Fu (MIT)
Xiaoliang Qi (Stanford)
Tao Xiang (IoP, CAS)

There is an increasing interest in bringing together the machine learning and physics research, and a large number of interesting works have been done in the recent few years. On one hand, the newly developed of machine learning algorithms can find more applications in physics research, and on the other hand, physics ideas can also inspire new development in machine learning.

Under this background, we organize a series of biannual international workshop on “ Machine Learning and Physics ”, and this is the first one. This workshop aims at bringing together leading experts in the field and discussing the current developments and future perspectives of this field. We hope that this series of conference can create a large impact in this fast developing field and stimulate more collaboration between Chinese and international communities.

This conference plans to focus on the connection between machine learning and various branches of physics, including

- Quantum Many-body/Condensed Matter Physics
- Quantum Information and Quantum Computer
- Statistical Mechanics
- Computational Physics
- High-energy Physics
- Astrophysics

THE TOPICS INCLUDE (but not limited to)

- Machine learning phase of matter
- Machine learning assisted computational physics and material search
- Quantum machine learning
- Machine learning application in high-energy and astrophysics