

Kun-Ying Lee

lky25@mails.tsinghua.edu.cn | Homepage | GitHub | Google Scholar

Robot Learning | Humanoid Locomotion | Motion Generation

Education

Tsinghua University	2025–2029 (expected)
Undergraduate, Yao Class	GPA: 3.8/4.0
Computer Science (Artificial Intelligence Track)	
Institute for Interdisciplinary Information Sciences (IIIS)	

Selected Publications

OMG: Omni-Modal Motion Generation for Generalist Humanoid Control

Siqiao Huang*, Kun-Ying Lee*, Dongming Qiao*, Guanqi He*, Zhenyu Wang, Yitang Li, Shaoting Zhu, and Hang Zhao.

arXiv:2606.10340, 2026.

Paper | Project | Code

RSS 2026 workshops: ExWBC (**Oral**); RoboData (**Spotlight**).

Hiking in the Wild: A Scalable Perceptive Parkour Framework for Humanoids

Shaoting Zhu*, Ziwen Zhuang*, Mengjie Zhao, Kun-Ying Lee, and Hang Zhao.

Conference on Robot Learning (CoRL), 2026 (accepted).

Paper | Project | Code

The Indefinite Integral of the n th Power of Inverse Trigonometric Functions

Kun-Ying Lee.

Mathmedia, Academia Sinica, 49(2):91–101, 2025.

Article

* Equal contribution.

Research Experience

MARS Lab, Tsinghua University	Nov. 2025–present
Research Assistant Advisor: Prof. Hang Zhao	

- **OMG-Posttrain.** Developing reinforcement learning methods for post-training OMG, focusing on closed-loop execution of highly dynamic motions with asynchronous motion generation and control.
- **OMG.** Developed a scalable, omni-modal humanoid foundation model that maps language, audio, and human reference motions to executable whole-body motions on Unitree G1.
- **Hiking in the Wild.** Validated sim-to-sim policy transfer and assisted with real-robot deployment of a depth-conditioned humanoid parkour policy.

Engineering Experience

TH-MOS Robot Soccer Team, Tsinghua University	Sept. 2025–present
Role: Gait Control Group Lead	

- Lead soccer-skill development and train policies for omnidirectional velocity tracking, passing, shooting, goalkeeping, and fall recovery.
- Built a **MuJoCo**-based RoboCup simulation environment integrating decision-making, locomotion control, and perception for rapid policy evaluation and iteration.

Selected Honors & Awards

5th Place , RoboCup 2026 Incheon (TH-MOS team)	Jul. 2026
2nd Place , RoboCup Asia-Pacific Tianjin Invitational Tournament (550W team)	May. 2026
3rd Place , RoboCup China Open (TH-MOS team)	May. 2026
Leading Talent (Lingjun) Award , Tsinghua University	Oct. 2025