

A central graphic consisting of a dark blue rounded rectangle with the text "Award Session" inside, flanked by two light gray rectangular bars.

Award Session

A One-Stage Method for FineAction Localization from Multiple Views

Yepeng Tang^{1,2†}, Weining Wang³, Chunjie Zhang^{1,2*}, Jie Jiang^{3,4},
Weitao Yuan^{3,4}, Sihan Chen^{3,4}, Jing Liu^{3,4}, Yao Zhao^{1,2}

¹ Institute of Information Science, Beijing Jiaotong University

² Beijing Key Laboratory of Advanced Information Science and Network Technology,
Beijing Jiaotong University

³ Institute of Automation, Chinese Academy of Sciences

⁴ School of Artificial Intelligence, University of Chinese Academy of Sciences



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BEIJING JIAOTONG UNIVERSITY



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自动化研究所
INSTITUTE OF AUTOMATION
CHINESE ACADEMY OF SCIENCES



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University of Chinese Academy of Sciences

1st Place Award

in FineAction Challenge on Temporal Action Localization

is proudly presented to

**Yepeng Tang, Weining Wang, Chunjie Zhang, Jie Jiang,
Weitao Yuan, Sihan Chen, Jing Liu, Yao Zhao**

Beijing Jiaotong University & Institute of Automation, CAS



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Limin Wang



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SIGNED Dr. Limin Wang
On behalf of organizers



上海人工智能实验室
Shanghai Artificial Intelligence Laboratory

Limin Wang Yali Wang Jing Shao Yu Qiao

Track1 : 2nd Place Winner

Technical Report

Yaokun Zhong , Xiaotong Lin

Sun Yat-sen University, Guangzhou, China



中山大學

SUN YAT-SEN UNIVERSITY

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上海人工智能实验室
Shanghai Artificial Intelligence Laboratory

Track1 : 3rd Place Winner

Technical Report for FineAction 2022 - Temporal Action Localization

Shimin Chen¹ Yijia Duan^{1,2} Wei Li¹ Changlong Li^{1,2} Chen Chen¹

¹OPPO Research Institute. ²Shanghai Jiao Tong University.



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3rd Place Award

in FineAction Challenge on Temporal Action Localization

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Changlong Li, Chen Chen**

OPPO Research Institute & Shanghai Jiao Tong University



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Multisports challenge 2022 report: Spatio-Temporal Action Detection Under Large Motion

Gurkirt Singh

Vasileios Choutas

Suman Saha

Fisher Yu

Luc Van Gool

Computer Vision Lab, ETH Zürich

ETH *zürich*

1st Place Award

in MultiSports Challenge on Human Action Detection

is proudly presented to

**Gurkirt Singh, Vasileios Choutas, Suman Saha,
Fisher Yu, Luc Van Gool**

Computer Vision Lab, ETH Zürich



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Limin Wang Yali Wang Jing Shao Yu Qiao

Holistic Interaction Transformer Network for Action Detection

Gueter Josmy Faure
Jheng-Hsien Yeh

Wei-Jhe Huang
Qing-Wen Yang

Cheng-Yu Ho
Shang-Hong Lai

Department of Computer Science, National Tsing Hua University, Taiwan



國立清華大學
NATIONAL TSING HUA UNIVERSITY

Challenge and Workshop on Detailed Video Action Understanding and Anomaly Recognition

2nd Place Award

in MultiSports Challenge on Human Action Detection

is proudly presented to

**Gueter Josmy Faure, Wei-Jhe Huang, Cheng-Yu Ho,
Jheng-Hsien Yeh, Qing-Wen Yang, Shang-Hong Lai**

Department of Computer Science, National Tsing Hua University



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Technical Report of Multisports Track of Spatio-Temporal Action Detection

Keke Chen*, Zhewei Tu*, Shaomeng Wang, Xiangbo Shu
Nanjing University of Science and Technology



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3rd Place Award

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Keke Chen*, Zhewei Tu*, Shaomeng Wang, Xiangbo Shu

Intelligent Media Analysis Group, Nanjing University of Science and Technology



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Limin Wang Yali Wang Jing Shao Yu Qiao

Track3 : 1st Place Winner

SportsTrack

Jie Wang*, Xiaodong Yang, Pengyu Zhou, Ting Wang, Yanming Zhang
BOE AIoT CTO



1st Place Award

in SportsMOT Challenge on Multi-actor Tracking

is proudly presented to

**Jie Wang, Xiaodong Yang, Yuzhou Peng,
Ting Wang, Yanming Zhang**

BOE AIoT CTO



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Shanghai Artificial Intelligence Laboratory

Limin Wang Yali Wang Jing Shao Yu Qiao

Track3 : 2nd Place Winner

A Technical Report for SportsMOT Track on Multi-actor Tracking

Jiahao Wang*, Chang Meng, Donghao Li, Hao Wang, Yuting Yang, Licheng Jiao, Fang Liu

School of Artificial Intelligence, Xidian University



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XIDIAN UNIVERSITY

2nd Place Award

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is proudly presented to

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Yuting Yang, Licheng Jiao, Fang Liu**

School of Artificial Intelligence, Xidian University



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Shanghai Artificial Intelligence Laboratory

Limin Wang Yali Wang Jing Shao Yu Qiao

Track3 : 3rd Place Winner

Observation Centric and Central Distance Recovery on Sports Player Tracking

Hsiang-Wei Huang, Cheng-Yen Yang, Jenq-Neng Hwang
Pyong-Kun Kim, Kwangju Kim, Kyoungoh Lee

University of Washington, Seattle
Electronics and Telecommunications Research Institute, Korea



한국 전자통신연구원

Electronics and Telecommunications
Research Institute

3rd Place Award

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Pyong-Kun Kim, Kwangju Kim, Kyoungoh Lee

University of Washington, Seattle &

Electronics and Telecommunications Research Institute, Korea



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Shanghai Artificial Intelligence Laboratory

Limin Wang Yali Wang Jing Shao Yu Qiao

Track4 : 1st Place Winner

Technical Report of Challenge on Kinetics-TPS Track on Part-level Action Parsing and Action Recognition

Jiawei Dong¹, Yuliang Chen², Shuo Wang¹

¹ Shanghai Paidao Intelligent Technology Co., Ltd.

² Chongqing Jiaotong University



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CHONGQING JIAOTONG UNIVERSITY

1st Place Award

in Kinetics-TPS Challenge on Part-level Action Parsing

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Chongqing Jiaotong University*



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Limin Wang Yali Wang Jing Shao Yu Qiao

DeeperAction Workshop at ECCV 2022:

2nd place solution for Part-level Action Parsing on Kinetics-TPS Track

Technical Report: Unifying Comprehensive Knowledge into Part-level Action Parsing

Xiaojia Chen¹

Xuanhan Wang¹

Yan Dai¹

Jingkuan Song^{1,2}

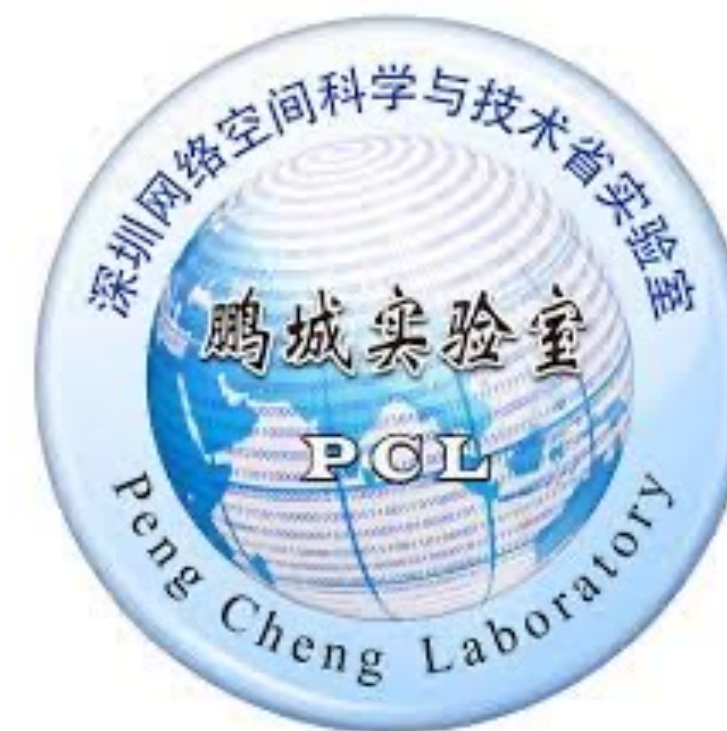
¹ Center for Future Media, University of Electronic Science and Technology of China, Chengdu, China

²Pengcheng Lab, Shenzhen, China



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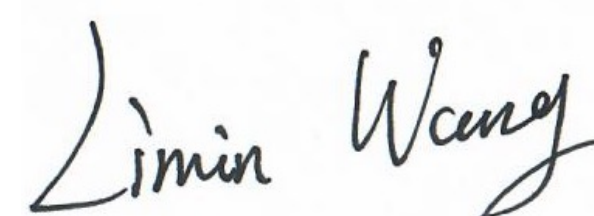
2nd Place Award

in Kinetics-TPS Challenge on Part-level Action Parsing

is proudly presented to

Xiaojia Chen, Xuanhan Wang, Yan Dai, Jingkuan Song

*Center for Future Media, University of Electronic Science and Technology of China &
Pengcheng Lab, Shenzhen, China*



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Limin Wang Yali Wang Jing Shao Yu Qiao

Track4 : 3rd Place Winner

**DeeperAction Workshop at ECCV 2022:
3rd place solution for Kinetics-TPS Challenge on Part-level Action Parsing
Challenge Track**

Technical Report: End-to-End Part-level Action Parsing with Cascaded Transformer

Lianli Gao Ji Zhang Beitao Chen Pengpeng Zeng

Center for Future Media, University of Electronic Science and Technology of China, Chengdu, China



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University of Electronic Science and Technology of China

3rd Place Award

in Kinetics-TPS Challenge on Part-level Action Parsing

is proudly presented to

Lianli Gao, Ji Zhang, Beitao Chen, Pengpeng Zeng

Center for Future Media, University of Electronic Science and Technology of China



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Track5 : 1st Place Winner

Technical Report of UrbanPipe Challenge Track on Fine-grained Video Anomaly Recognition

Jiawei Dong, Bo Zhang, Zongjie Yu, Chen Hu, Shuo Wang

Shanghai Paidao Intelligent Technology Co., Ltd.



1st Place Award

in UrbanPipe Challenge on Fine-grained Video Anomaly Recognition

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Limin Wang Yali Wang Jing Shao Yu Qiao



上海人工智能實驗室
Shanghai Artificial Intelligence Laboratory



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Track5 : 2nd Place Winner

UrbanPipe Track on Fine-grained Video Anomaly Recognition Technical Report

Hao Wang, Jiahao Wang, Zhuojun Dong, Yuting Yang, Qianyue Bao, Fang Liu, Licheng Jiao
Key Laboratory of Intelligent Perception and Image Understanding
School of Artificial Intelligence Xidian University, Xi'an, China



西安电子科技大学
XIDIAN UNIVERSITY

2nd Place Award

in UrbanPipe Challenge on Fine-grained Video Anomaly Recognition

is proudly presented to

**Hao Wang, Jiahao Wang, Zhuojun Dong, Yuting Yang,
Qianyue Bao, Fang Liu, Licheng Jiao**

*Key Laboratory of Intelligent Perception and Image Understanding,
School of Artificial Intelligence, Xidian University*



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Shanghai Artificial Intelligence Laboratory

Limin Wang Yali Wang Jing Shao Yu Qiao

Track5 : 3rd Place Winner

The Solution of USTC-NERC SLIP team for UrbanPipe Track on Fine-grained Video Anomaly Recognition

Jun Yu¹, Xiaohua Qi¹, Zhihong Wei¹, Teng Zhang², Mohan Jing¹, and Zepeng Liu¹

¹ University of Science and Technology of China

² Zhejiang University



中国科学技术大学

University of Science and Technology of China



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in UrbanPipe Challenge on Fine-grained Video Anomaly Recognition

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Mohan Jing, Zepeng Liu**

*University of Science and Technology of China &
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Shanghai Artificial Intelligence Laboratory

Limin Wang Yali Wang Jing Shao Yu Qiao

**Discussion
Forward**

- Fine-grained classes**
- Multi-label confusion**
- Occlusion & localization difficulty**
- Context and interaction object**
- Fine-grained anomaly detection**

- Action is relatively high-level and complex concept**
- More dense annotations for detailed understanding**
- More context reasoning with knowledge**
- Combine CV & NLP**
- Attention to domain-relevant knowledge**

Over & Thank you !



Homepage: <https://deeperaction.github.io>