



DeeperAction@ECCV 2022

Detailed Video Action Understanding and Anomaly Recognition

Organizers: Limin Wang, Yali Wang, Jing Shao, Yu Qiao

24th October, 2022



南京大学
NANJING UNIVERSITY

MCG
MULTIMEDIA COMPUTING GROUP
媒体计算研究组



中国科学院
SIAT
CHINESE ACADEMY OF SCIENCES
深圳先进技术研究院
上海人工智能实验室
Shanghai Artificial Intelligence Laboratory



商汤
senseTime

Deeper Action Organizers

ECCV
TEL AVIV 2022

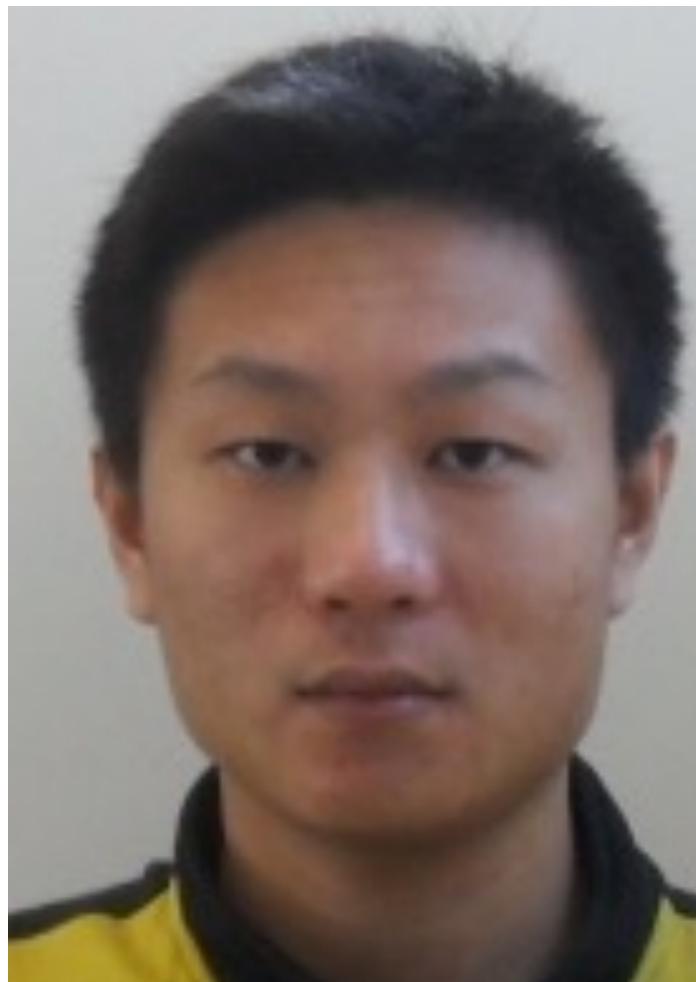
Limin Wang

Nanjing University



Yali Wang

SIAT, CAS
Shanghai AI Lab



Jing Shao

SenseTime



Yu Qiao

SIAT, CAS
Shanghai AI Lab



Rahul Sukthankar

Google Research



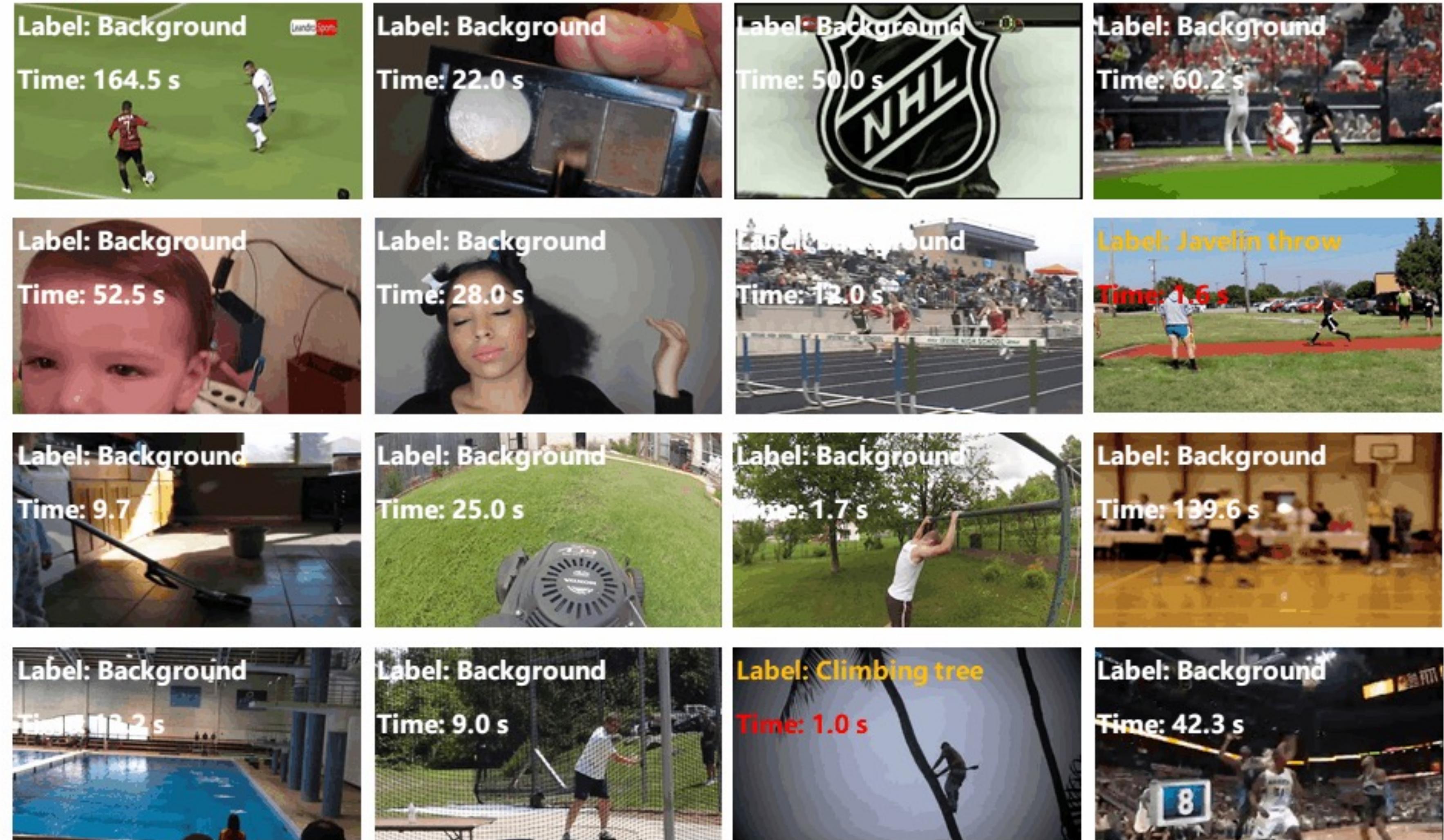
Luc Van Gool

CVL ETHZ, KU Leuven



9:00 - 9:10	DeeperAction challenge introduction	
9:10 - 9:40	(Invited Talk 1) Video Understanding for Robotics	Xiaolong Wang
9:40 - 9:55	(Introduction) Track 1 - FineAction Challenge on Temporal Action Localization	
09:55 - 10:10	Winner talk for Track 1 by team from <u>Beijing Jiaotong University & Chinese Academy of Sciences</u>	
10:10 - 10:25	(Introduction) Track 2 - MultiSports Challenge on Human Action Detection	
10:25 - 10:40	Winner talk for Track 2 by team from <u>ETH Zurich</u>	
10:40 - 10:55	(Introduction) Track 3 - SportsMOT Challenge on Multi-actor Tracking	
10:55 - 11:10	Winner talk for Track 3 by team from <u>BOE IoT CTO</u>	
11:10 - 11:40	(Invited Talk 2) Large-scale Video-Language Pre-training	Mike Shou
11:40 - 11:55	(Introduction) Track 4 - Kinetics-TPS Challenge on Part-level Action Parsing	
11:55 - 12:10	Winner talk for Track 4 by team from <u>Shanghai Paidao Intelligent Technology Co., Ltd.</u>	
12:10 - 12:25	(Introduction) Track 5 - UrbanPipe Challenge on Fine-grained Video Anomaly Recognition	
12:25 - 12:40	Winner talk for Track 5 by team from <u>Shanghai Paidao Intelligent Technology Co., Ltd.</u>	
12:40 - 12:50	Closing and award	

Track
Organizers:
Yi Liu , Xiao Ma



Track 2: MultiSports

Track
Organizers:
Yixuan Li,
Lei Chen,
Runyu He,
Zhenzhi Wang

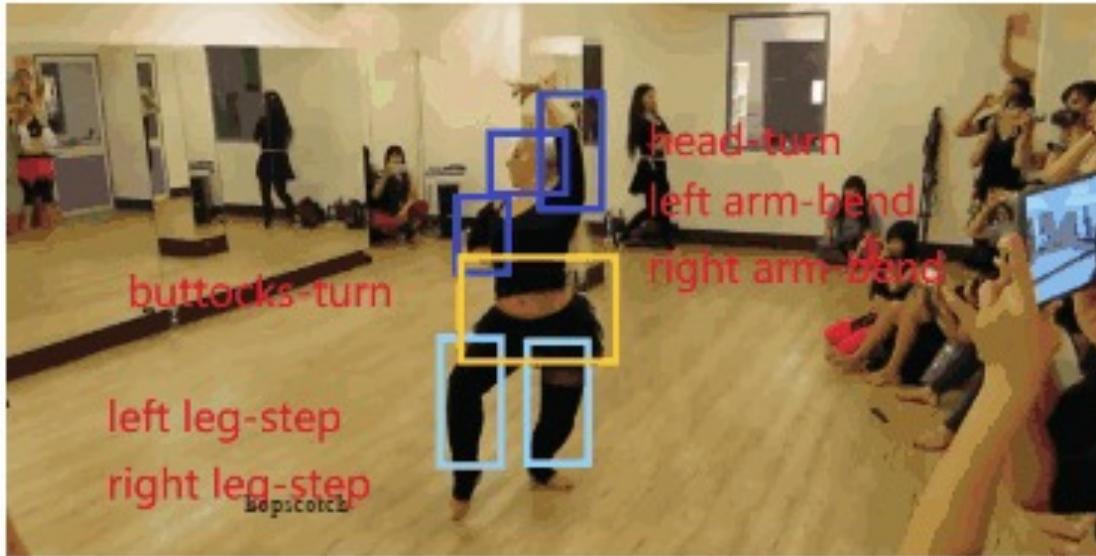


Track Organizers:

Yutao Cui,
Xiaoyu Zhao,
Chenkai Zeng,
Yichun Yang



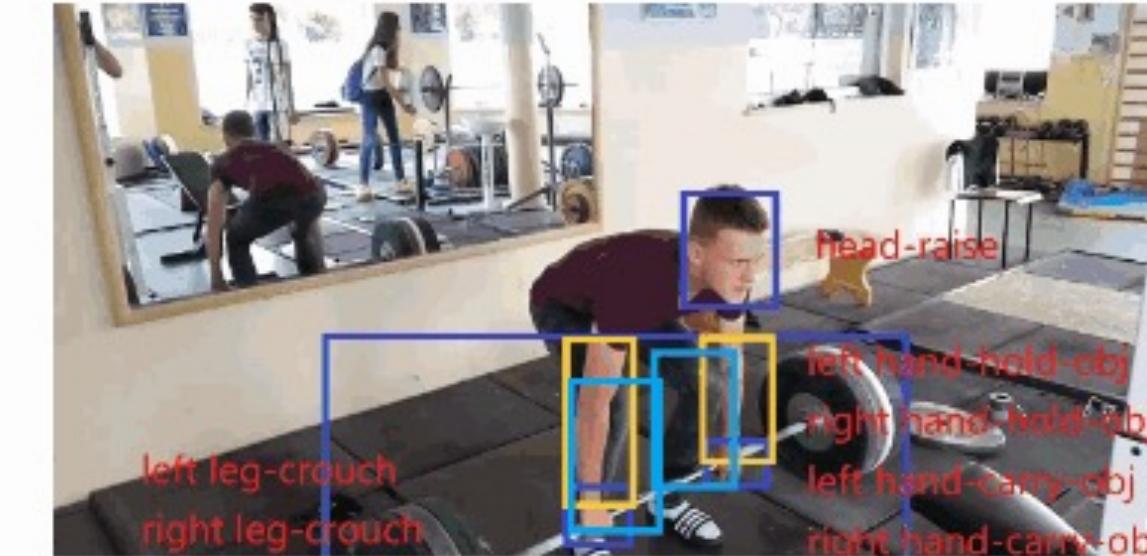
Track
Organizers:
Kunchang Li,
Xiao Ma,
Ding Xia,
Dongliang Wang,
Weihao Gan,
Junwei He



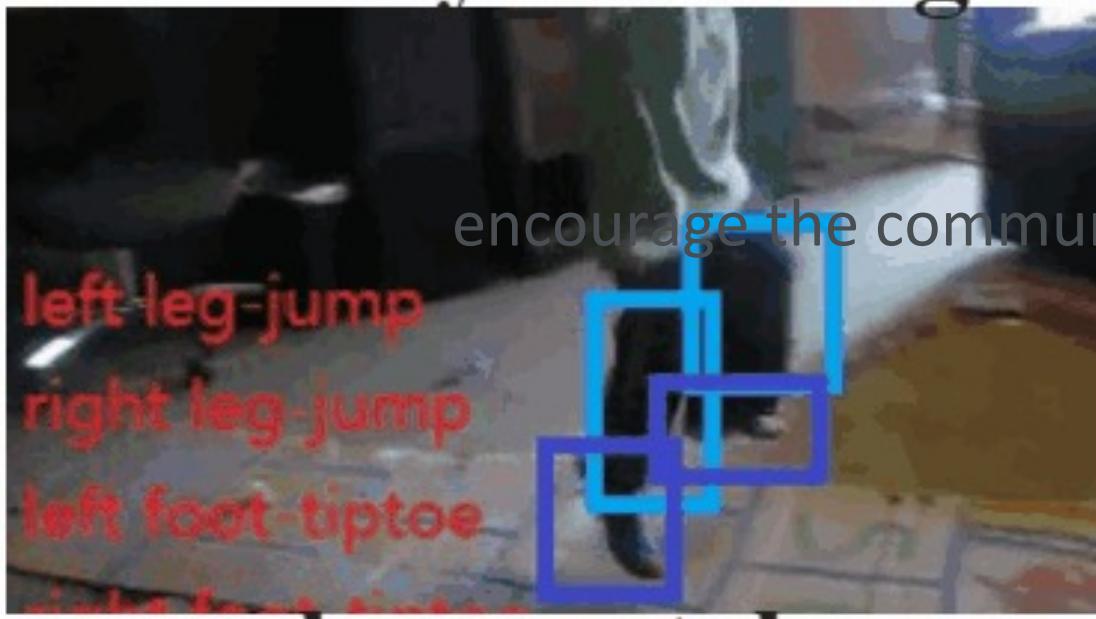
belly_dancing



clean_and_jerk



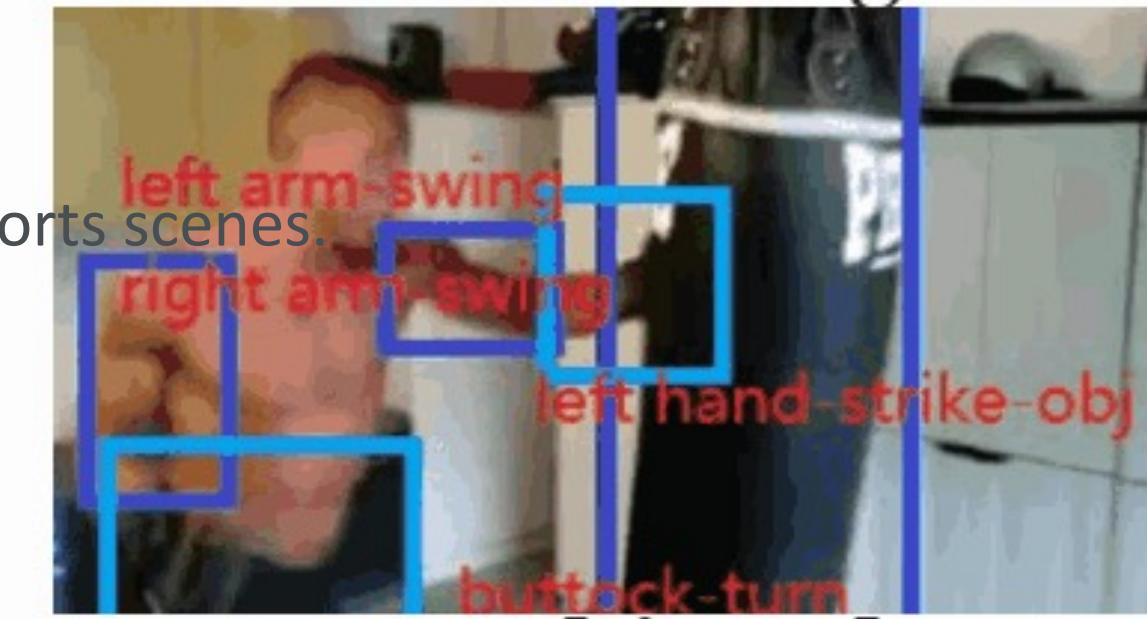
deadlifting



hopscotch



lunge



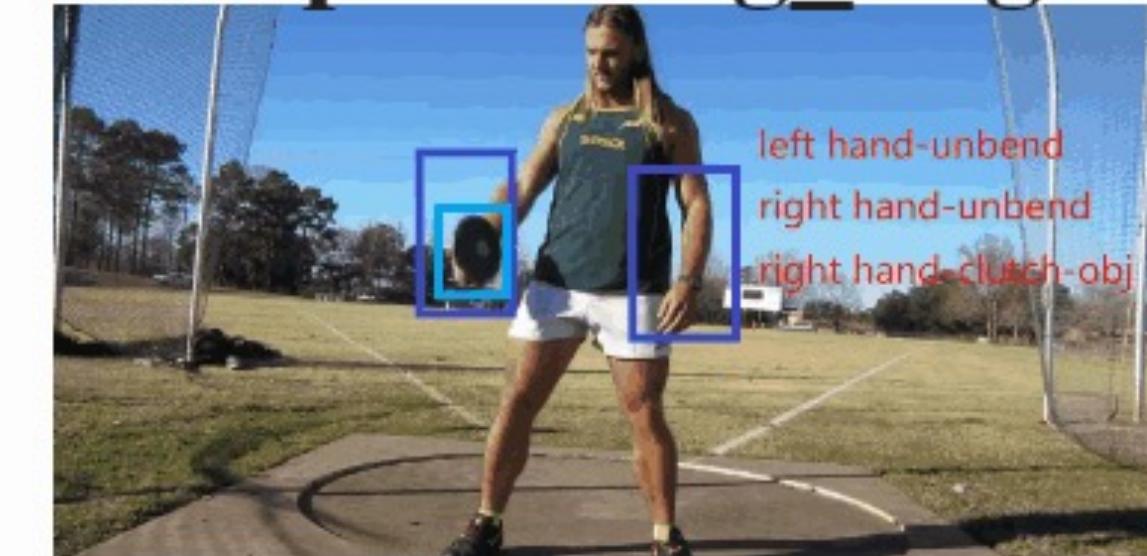
punching_bag



pull_ups

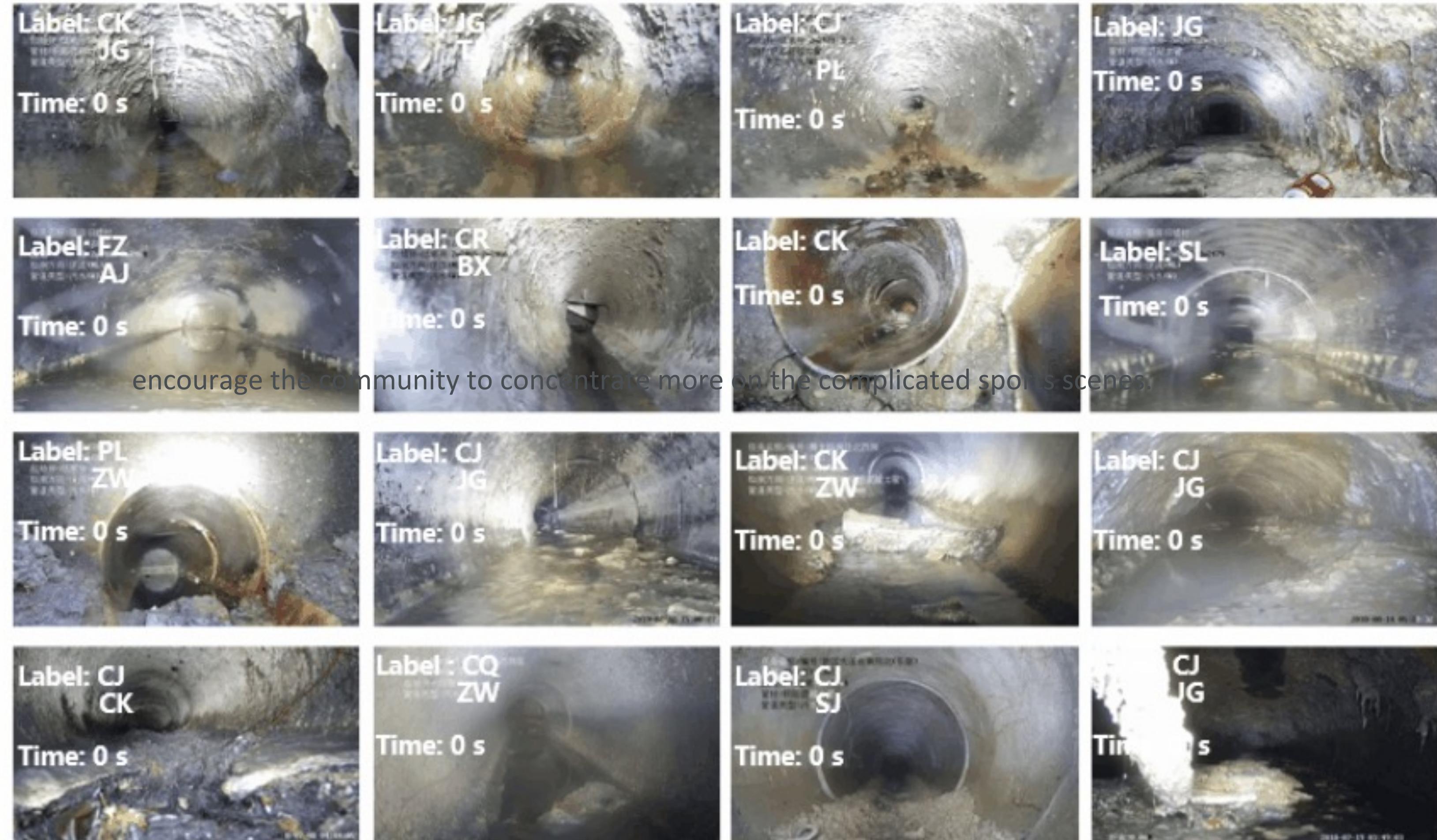


push_up



throwing_discus

**Track
Organizers:**
Xuan Zhang,
Yi Liu,
Ying Li,
Guixin Liang,
Fei Xie,
Wei Yao,
Yi Dai,
Yali Wang,
Yu Qiao



Contribution of Our Workshop

FineAction Dataset

- 106 categories
- 16732 videos
- 103324 instances

MultiSports Dataset

- 66 categories
- 3200 clips
- 37701 instances
- 902k bboxes

Kinetics-TPS Dataset

- 24 categories
- 4741 videos
- 1.6 M bboxes of human instances
- 0.5M bboxes of objects
- 7.9M bboxes of body parts

SportsMOT Dataset

- 240 video clips
- 3401 tracks
- 15k frames
- 1629k bboxes

UrbanPipe Dataset

- 9.6k videos
- 16 anomaly classes
- 55 hours' duration