Spatio-temporal Instance Segmentation Challenge

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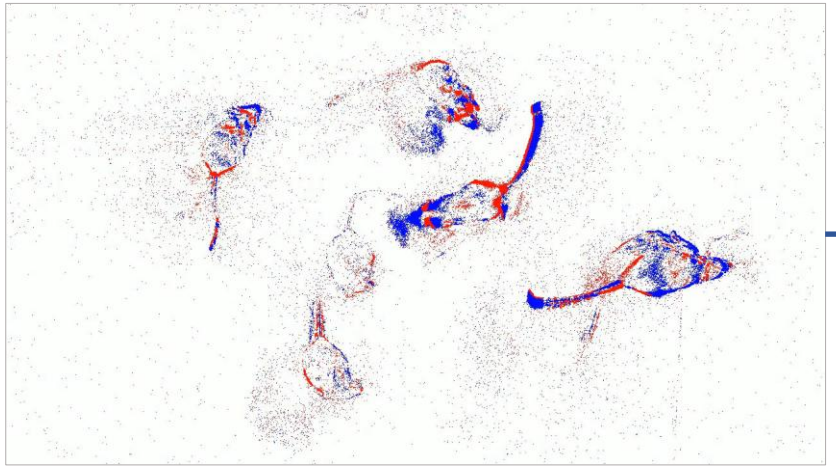
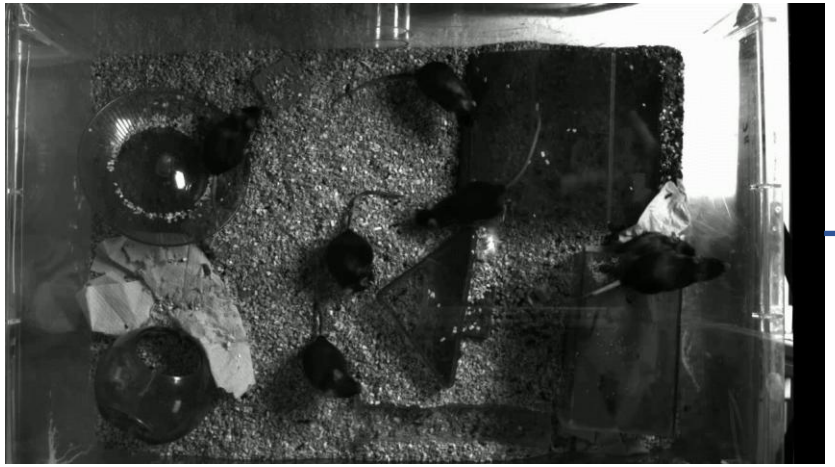
science of intelligence

Event-based Vision 2025 CVPR Nashville JUNE 11-15, 2025

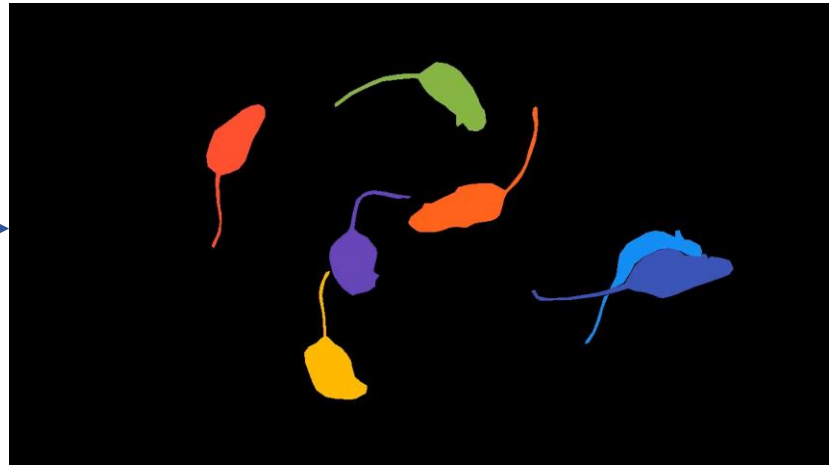


Events



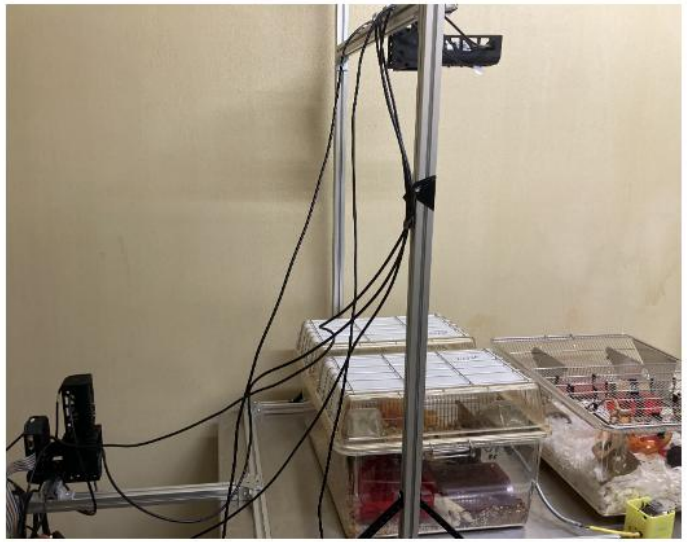
Grayscale

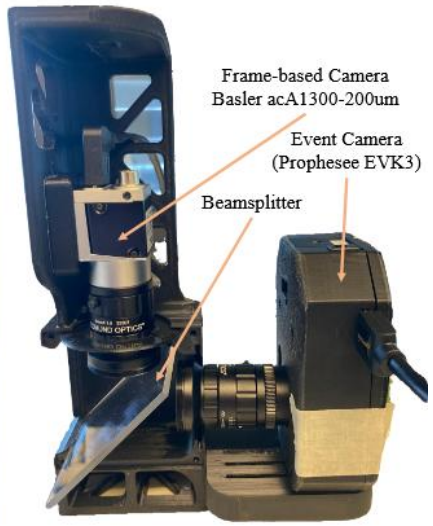
Your Model



Predicted Masks

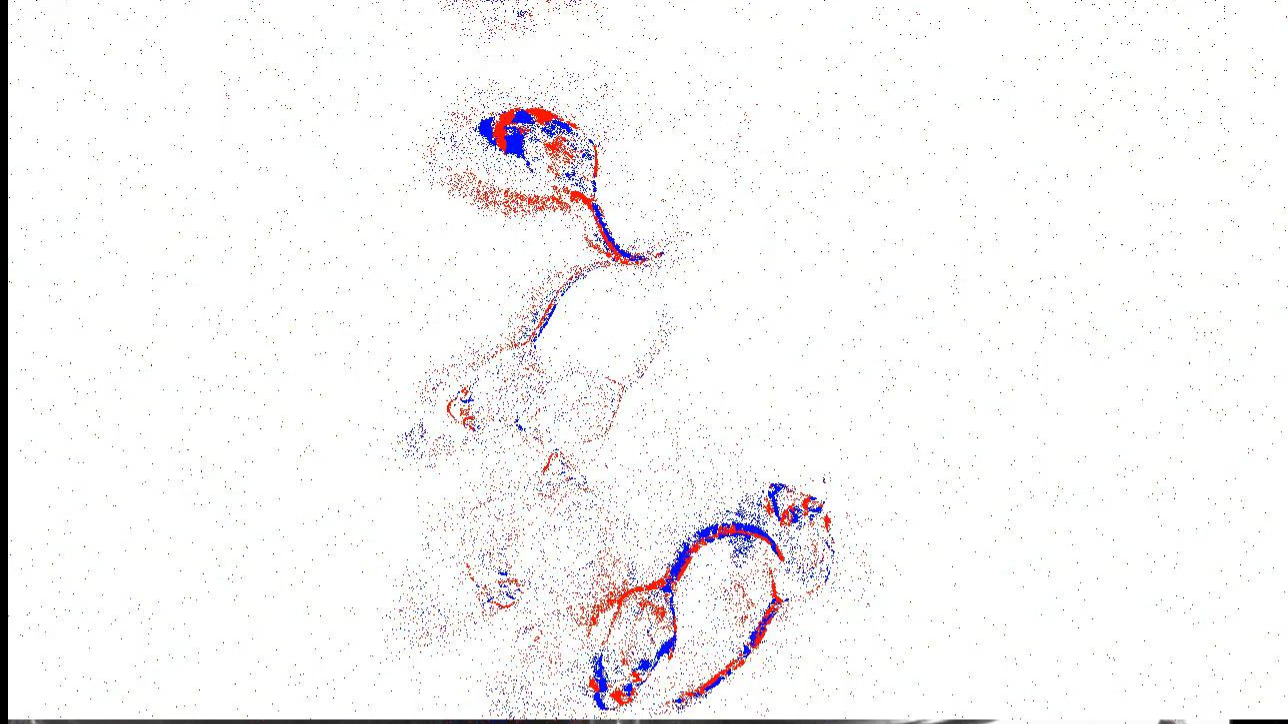
MouseSIS Dataset

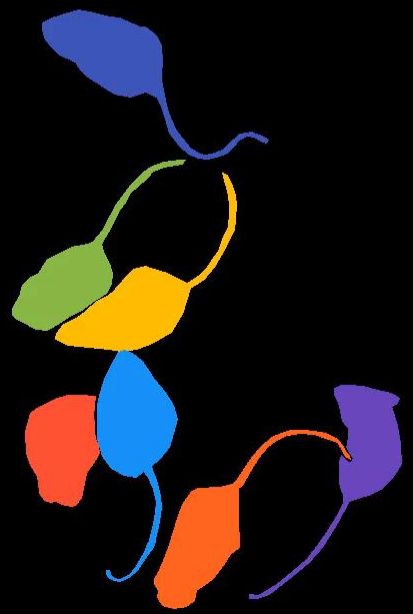


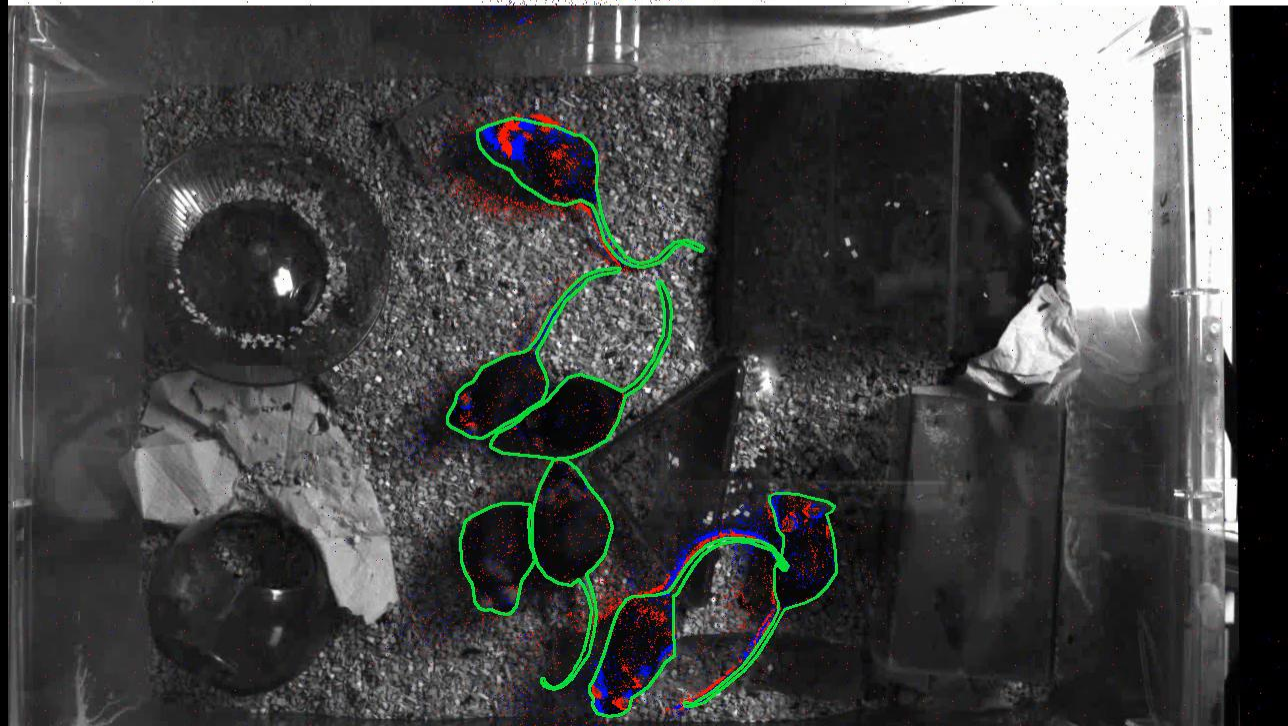


- Space-time instance segmentation dataset focused on mice tracking
- Combined frames and event data from neuromorphic vision sensor
- 33 sequences (~20 seconds each, ~600 frames per sequence)
- YouTubeVIS-style annotations

Hamann, F., Li, H., Mieske, P., Lewejohann, L., & Gallego, G. (2024). **MouseSIS: A Frames-and-Events Dataset for Space-Time Instance Segmentation of Mice**. ECCVW 2024



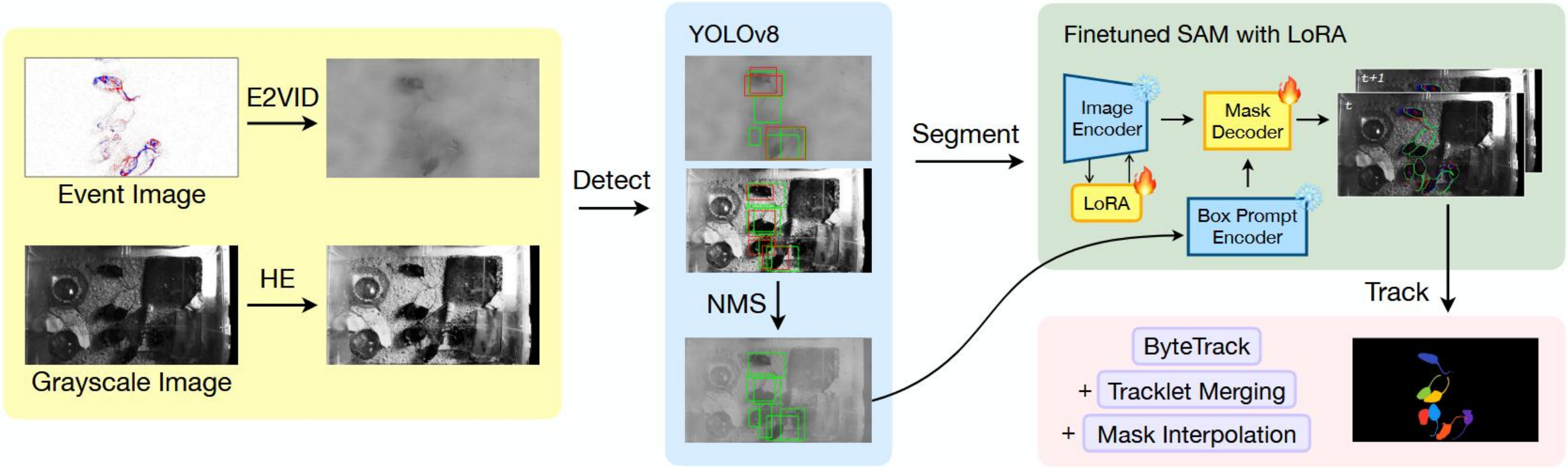




Participation Overview

- 62 enrolled participants
- 14 leaderboard submissions
- 5 best teams submitted factsheets
- Prevalent methods: tracking-by-detection combined with deep pre-trained priors (e.g. SAM)

Winning Method: RWTH Aachen University



1st Place - emilmed (HOTA: 0.62)

Team: Emil Mededovic, Fabian Gülhan, Yuli Wu, Johannes Stegmaier
Institution: RWTH Aachen University

2nd Place - enidx (HOTA: 0.57)

Team: Jing He, Yiqing Wang, Kexin Zhang, Lingling Li, Licheng Jiao, Mengru Ma
Institution: Xidian University

3rd Place - mysterypeople (HOTA: 0.54)

Team: Hongxiang Huang[1], Yuhao Yan[2], Hongwei Ren[1], Xiaopeng Lin[1], Yulong Huang[1], Bojun Cheng[1]
Institutions:
[1]Hong Kong University of Science and Technology
[2]Sun Yat-sen University

4th Place - shlee (HOTA: 0.54)

GitHub Code

Team: SeHyun Lee, Gyu Sung Ham, Kanghan Oh, Gi Hyun Lim
Institution: AI Convergence Research Institute, Wonkwang University

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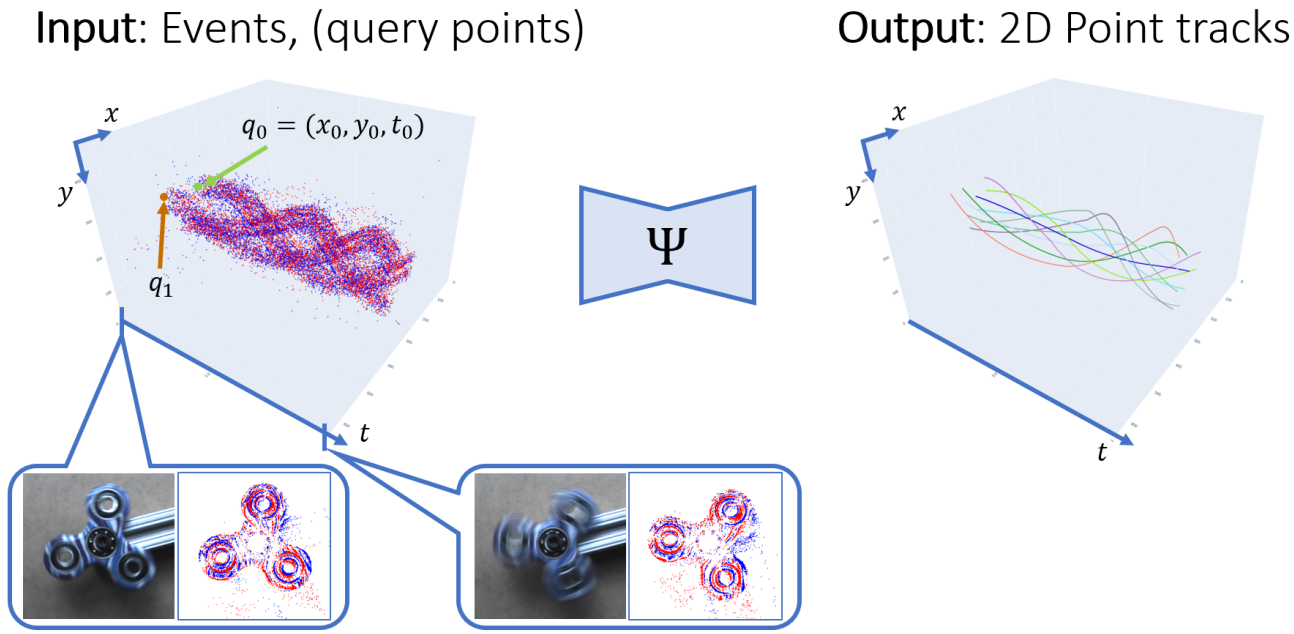
5th Place - vivien (HOTA: 0.54)

Team: Boxuan Yang, Bowen Du
Institution: Tongji University

ETAP: Event-based Tracking of Any Point

CVPR'25 Highlight



- Poster at Sunday (15.06), 4 – 6pm, ExHall D Poster #99
- Today (12.06), 10am – 1:30pm ExHall D, poster boards #280 - #359