

We tackle event collapse in various motion estimation problems based on Contrast Maximization (CMax).

In low-DOF ego-motion estimation [1, 2], we propose regularizers that:

- achieve state-of-the-art accuracy by mitigating event collapse,
- analyze up to 8 DOFs,
- do not sacrifice the runtime of the original CMax.



In optical flow estimation [3], we propose a principled method that:

- sequence,

## **Event Collapse in Motion Estimation using CMax**

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## Summary

• ranks 1st among all methods in MVSEC indoor scenes,

• ranks 1st among the unsupervised and model-based methods in the outdoor

• achieves competitive results in DSEC,

• overcomes the ground truth limitations, transfers to the unsupervised settings.

## **Optical Flow**

	AEE [px]↓	%Out↓	FWL↑
E-RAFT	0.79	2.68	1.29
Ours	3.47	30.86	1.37









	AEE
Zhu et al. 2019	0.3
Paredes et al. 2021	0.9
Hagenaars et al. 2021	0.4
Ours	0.3