

JUNE 18-22, 2023

CVPR



VANCOUVER, CANADA



YONSEI
UNIVERSITY

MvP
LAB

Yonsei Image and Video
Pattern Recognition Lab

Exploring Discontinuity for Video Frame Interpolation

Sangjin Lee , Hyeongmin Lee, Chajin Shin , Hanbin Son, and Sangyoun Lee

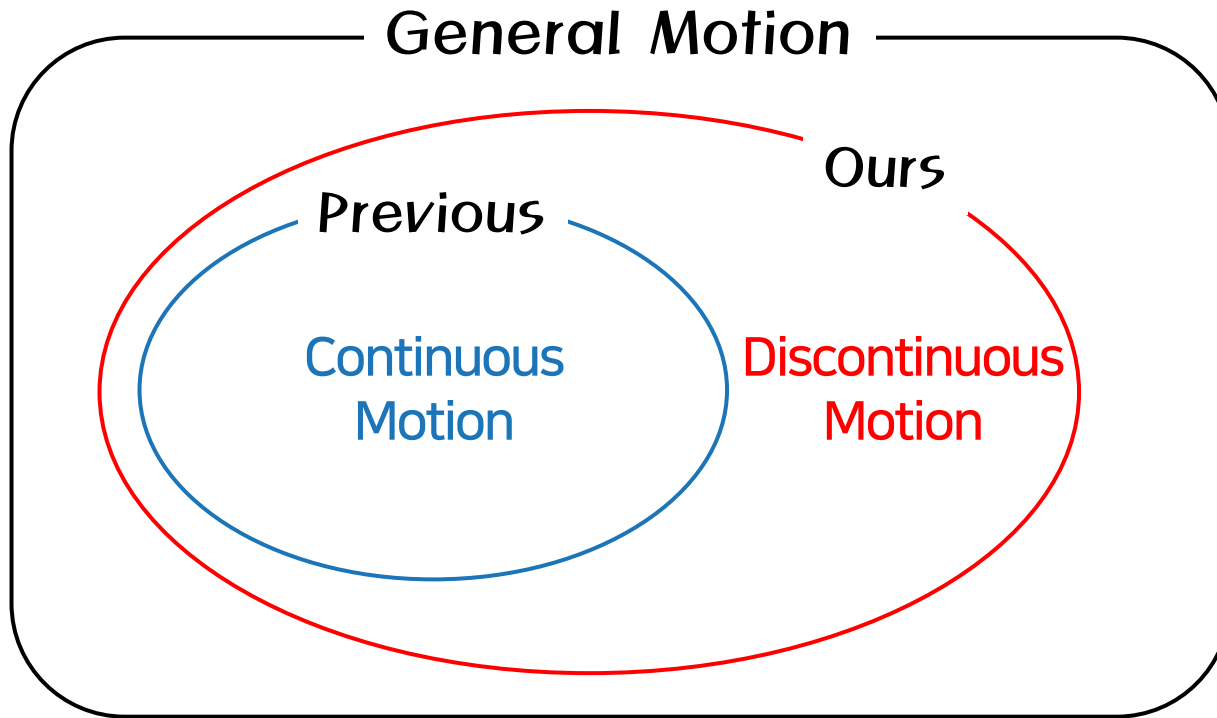
Image and Video Pattern Recognition LAB

Electrical and Electronic Engineering Dept, Yonsei University

Highlight, WED-AM-149

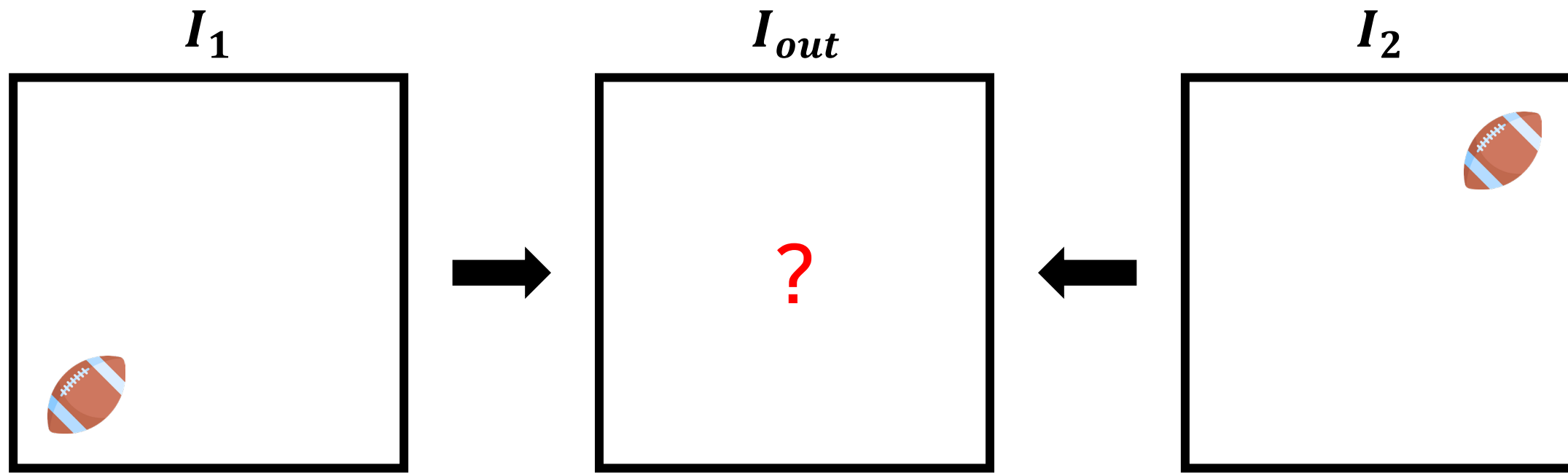
About ...

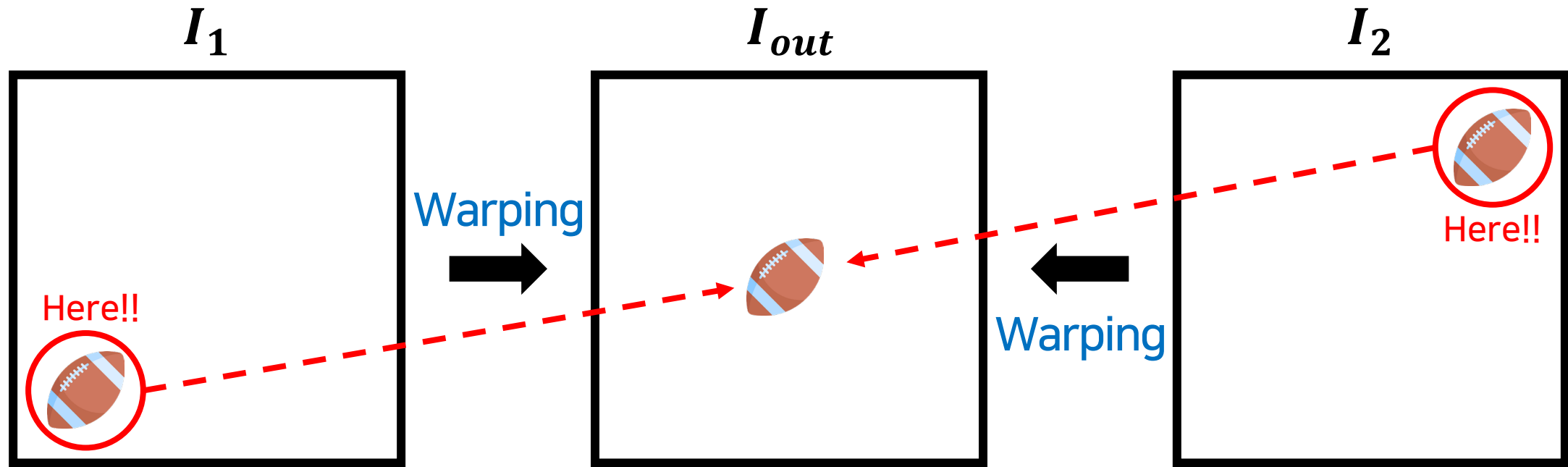
Exploring Discontinuity for Video Frame Interpolation



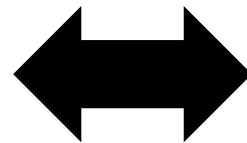
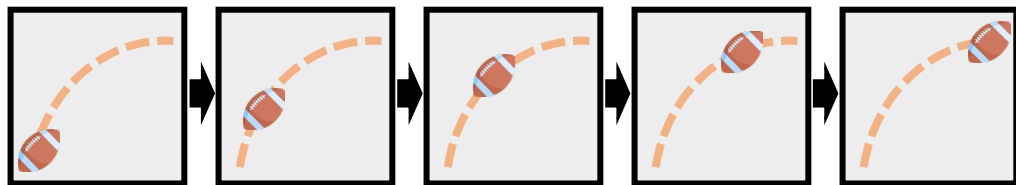
Solve?

- Data Augmentation
- Discontinuity Map
- Supervision & Dataset

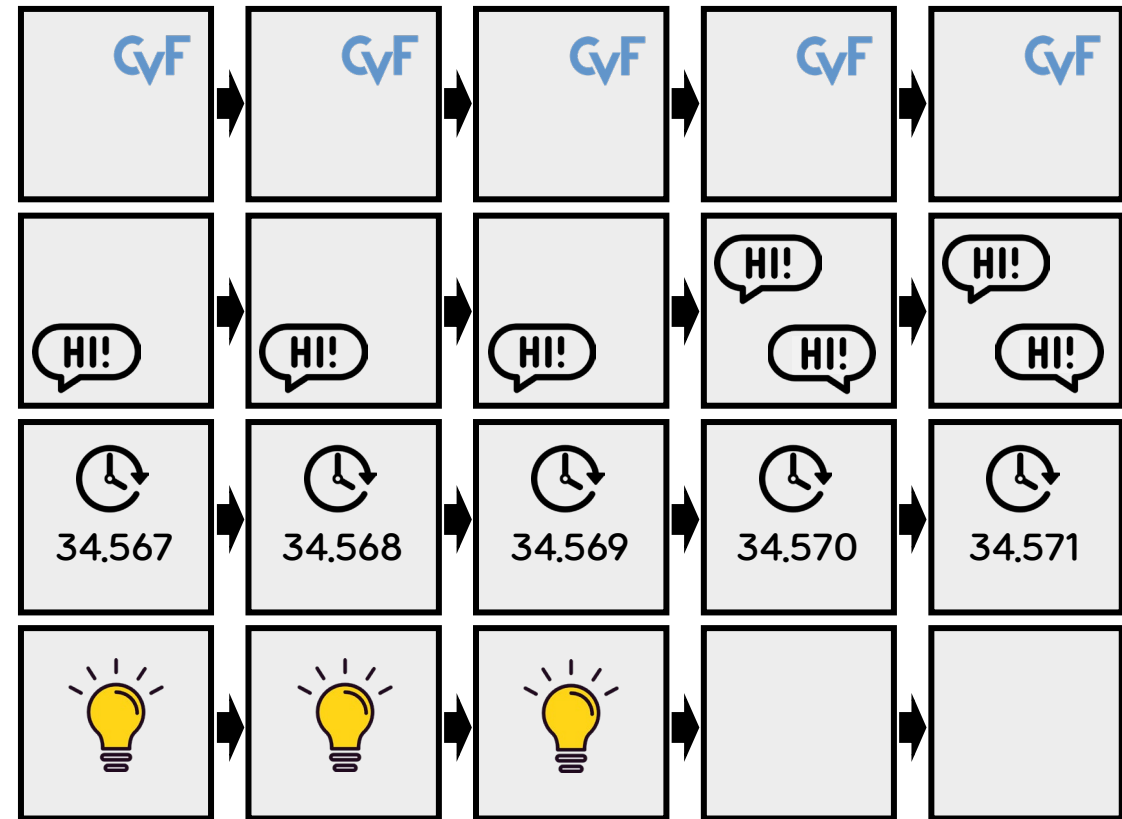




Continuous



Discontinuous



Previous Studies : Only Suitable for **Continuous Domain !!**

Figure-Text Mixing



Continuous Motion Domain

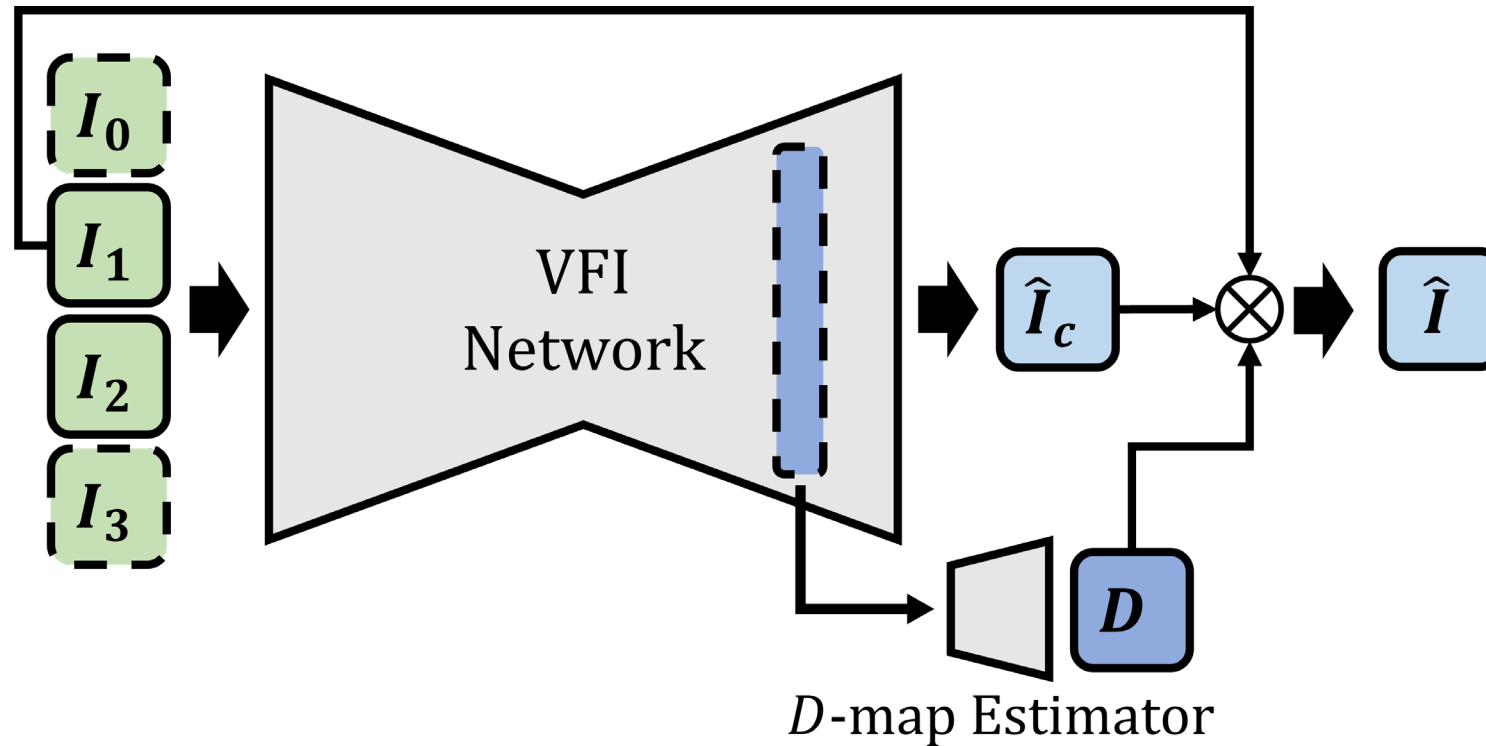
+ Figure-Text Mixing

without Extra Dataset



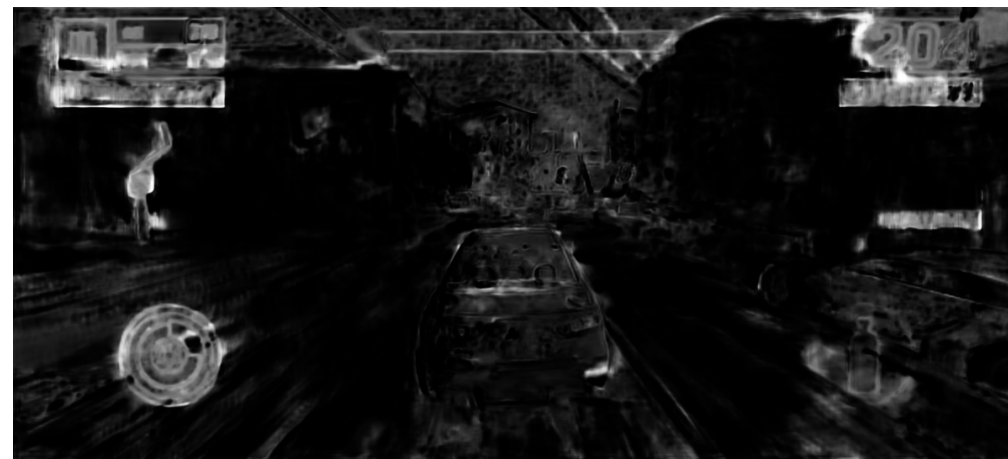
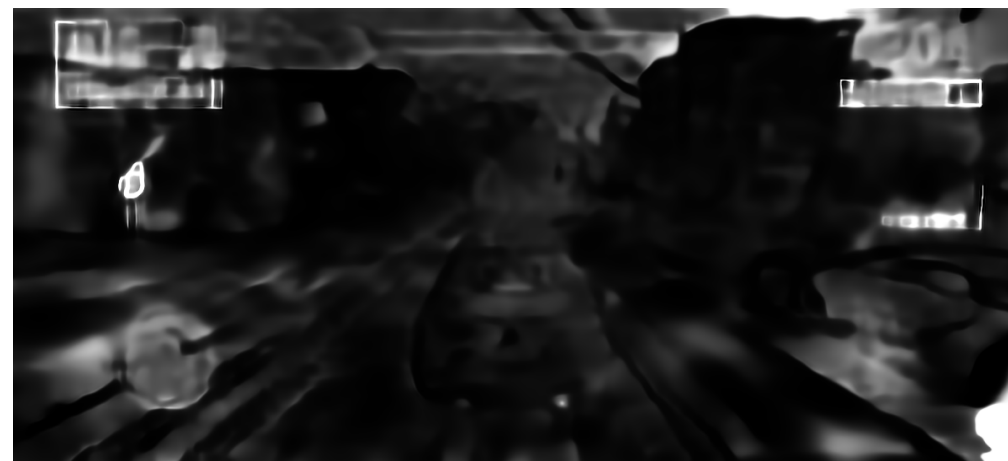
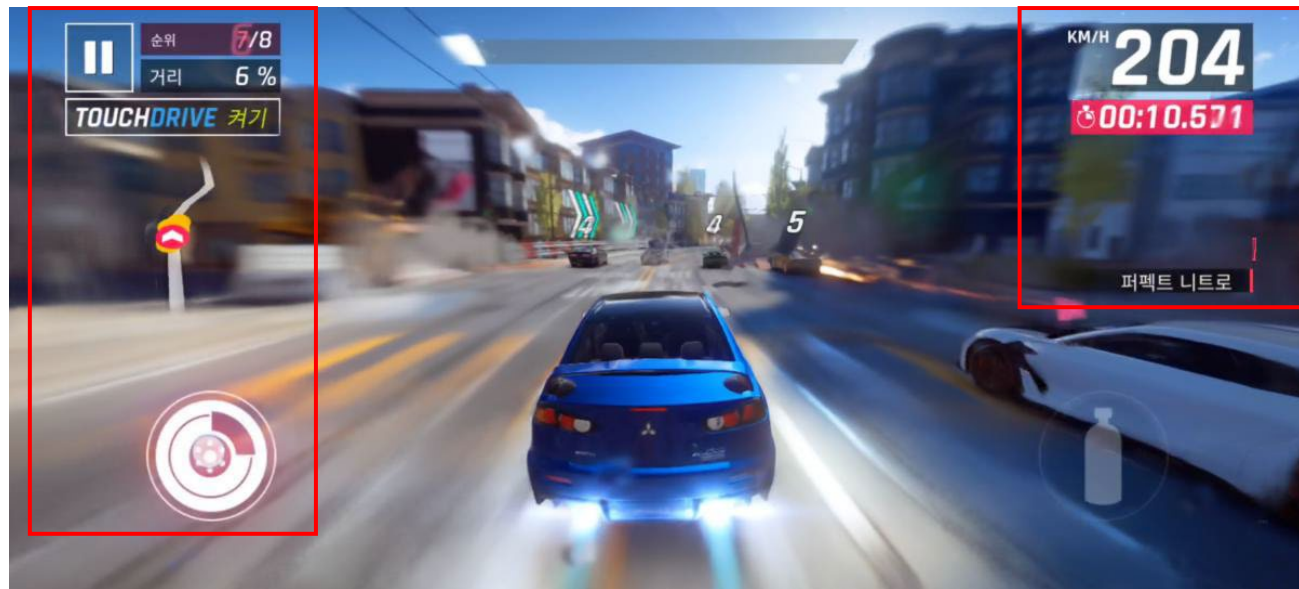
Continuous & Discontinuous
Motion Domain

Discontinuity Map



$$\text{Output : } \hat{I} = (1 - D) \cdot \hat{I}_c + D \cdot I_1$$

Discontinuity Map



D-map shows the **user interface elements** and **some digits** (*Discontinuous motion*)

Evaluation on GDM dataset : 30sequence with 1920x1080 resolution



AdaCoF

ABME

IFRNet

RIFE

Ours

GT

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Thank you for listening

Contact me

✉ Email: sglee97@yonsei.ac.kr

🐙 Source code: <https://github.com/pandatimo/Exploring-Discontinuity-for-VFI>



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