



Midterm Report

Multimedia Techniques & Applications

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Description

- Write a **technical report** for introducing a multimedia technique or an application
 - 3~5 pages
 - A template is available on the NTPU course system
 - An example is also available for your reference
- Personal work
- Due date: 5/22
- 20% for the final grading

If you are not sure whether a topic is suitable or not, write an email to me or TA



Possible Topics (but not Limited to)

Advanced Image Interpolation Algorithms

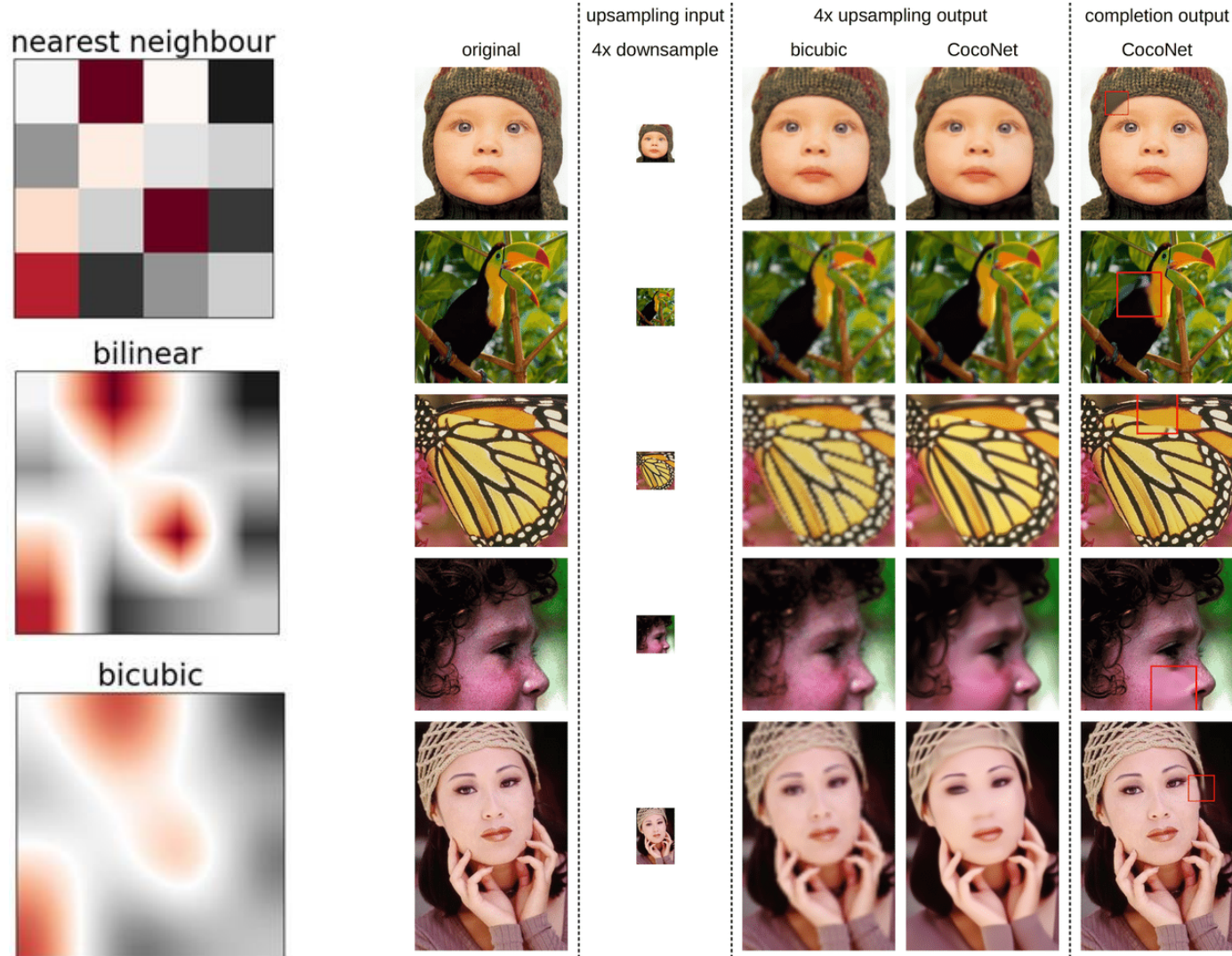


Image Super-Resolution

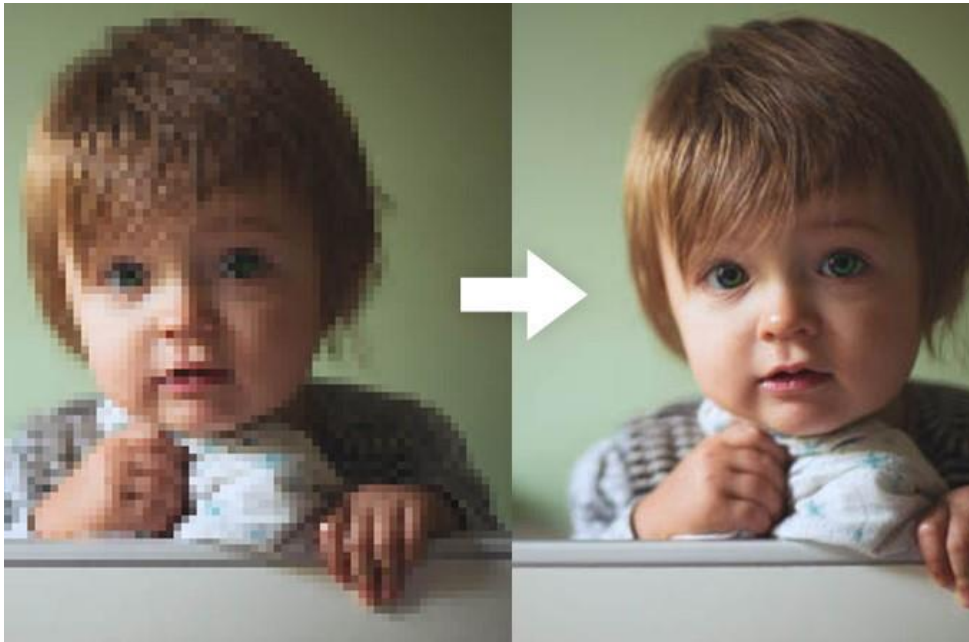


Image Denoising



Image Deblurring



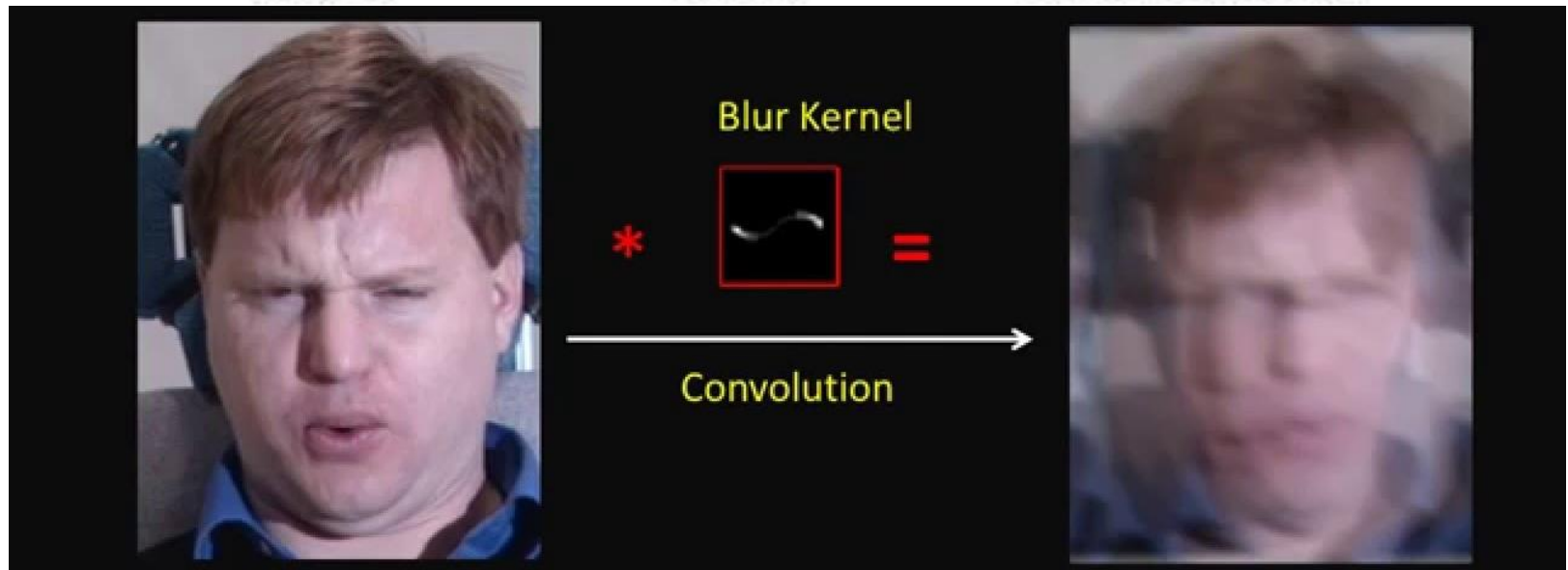
Original image



Blurred image



Image restored by Wiener filter



Foreground Segmentation

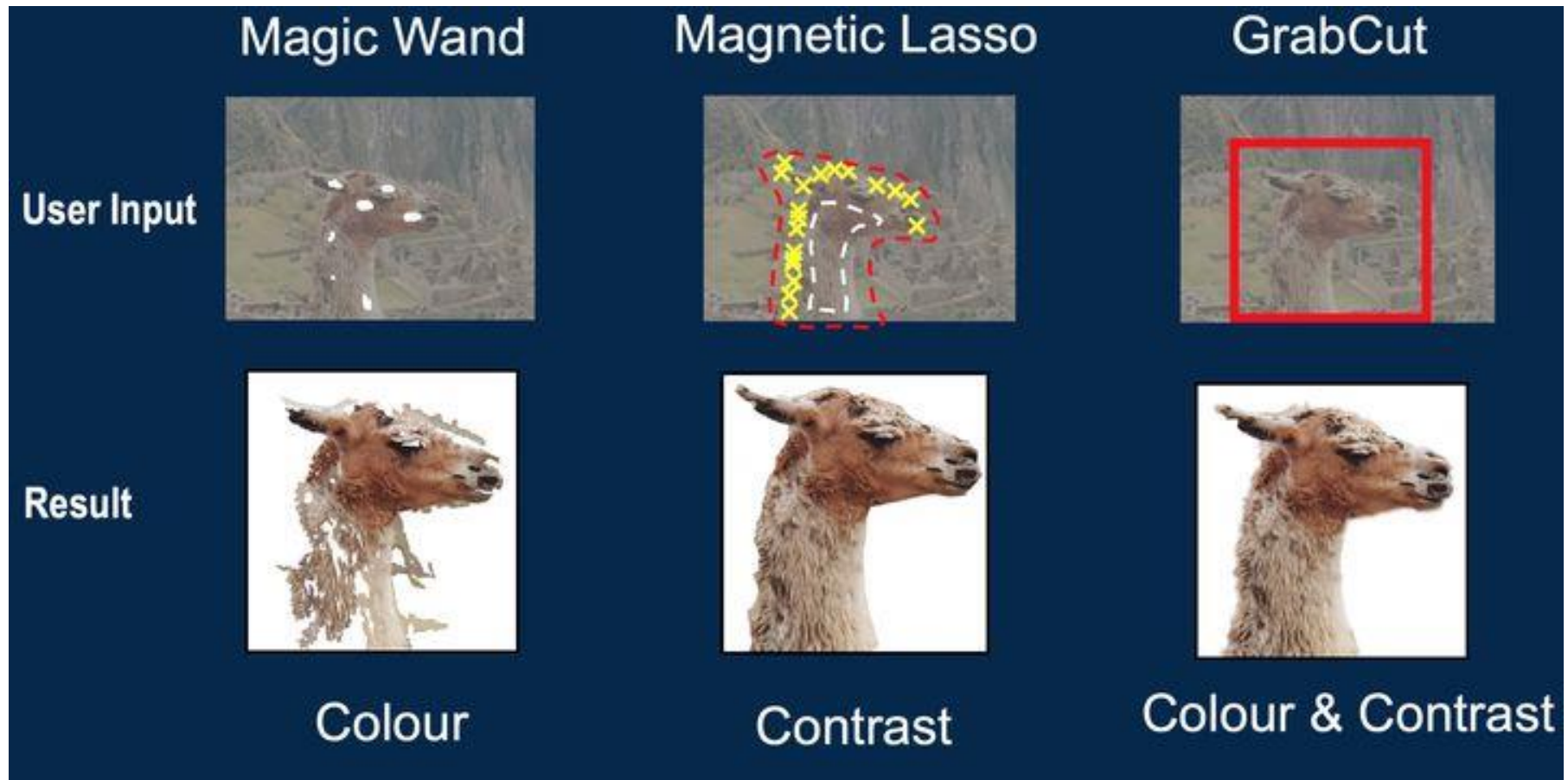


Image Resizing



original capture



scaling



Chang and Chuang [2012]



original capture



scaling



Chang and Chuang [2012]

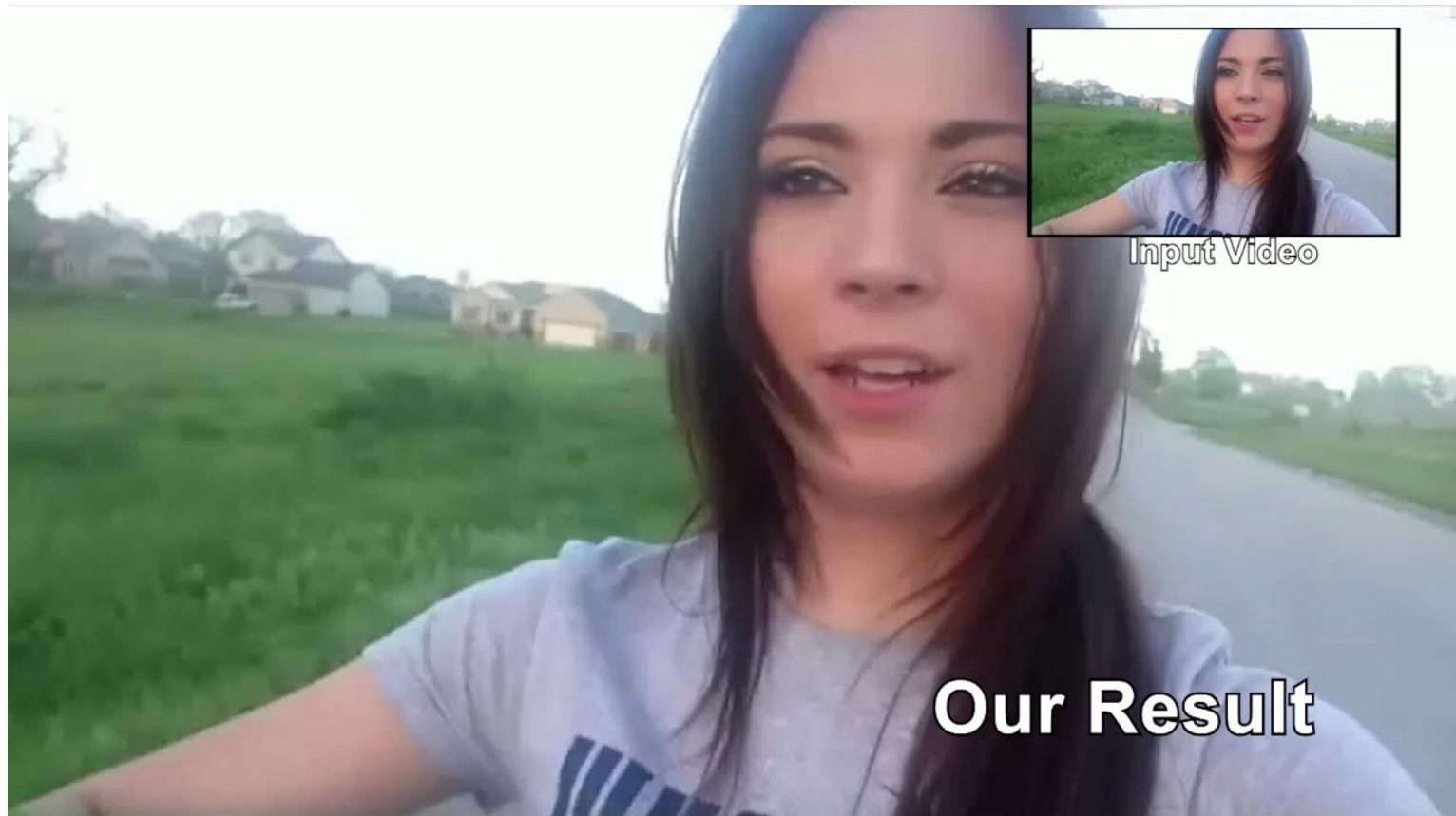
Photo Tourism

- Photo tourism: exploring photo collections in 3D
 - Snavely et al., SIGGRAPH 2006

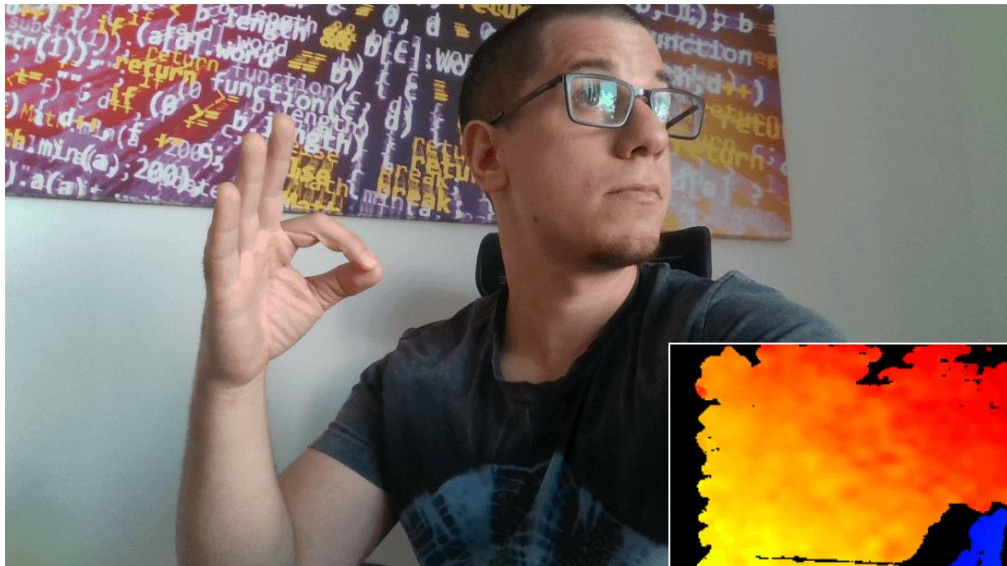


Video Stabilization

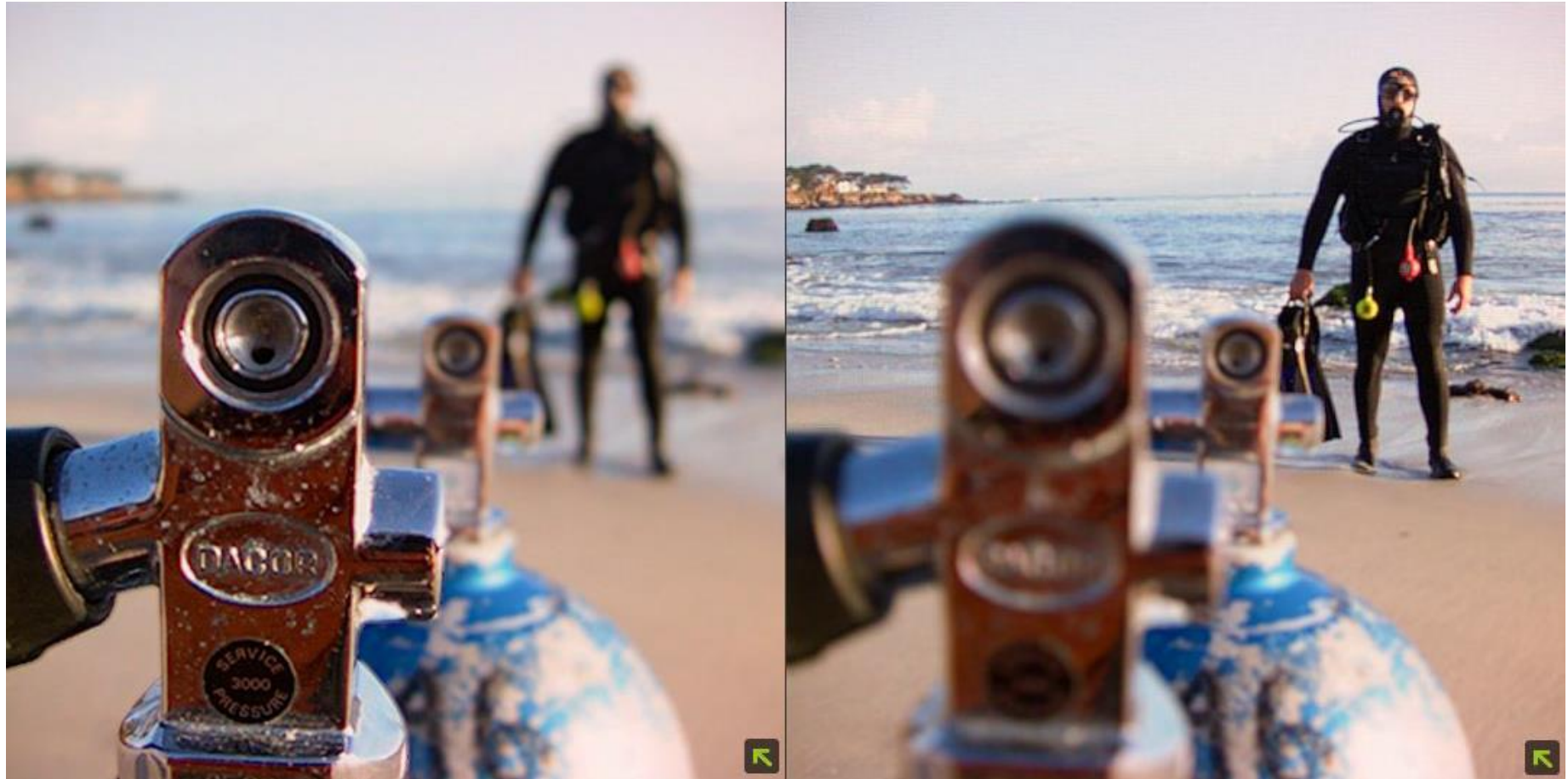
- Hybrid Neural Fusion for Full-frame Video Stabilization
 - Liu et al., ICCV 2021



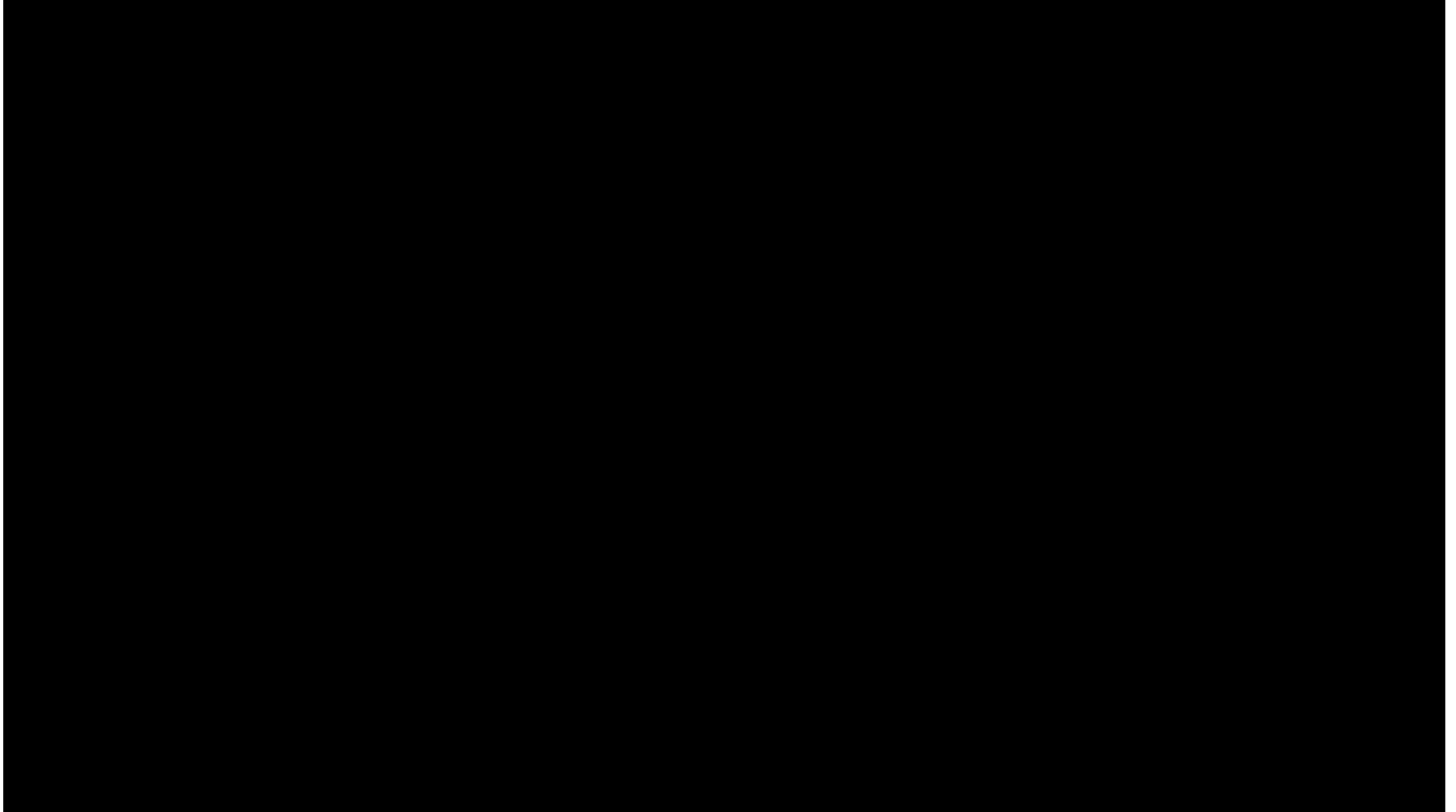
Depth Camera



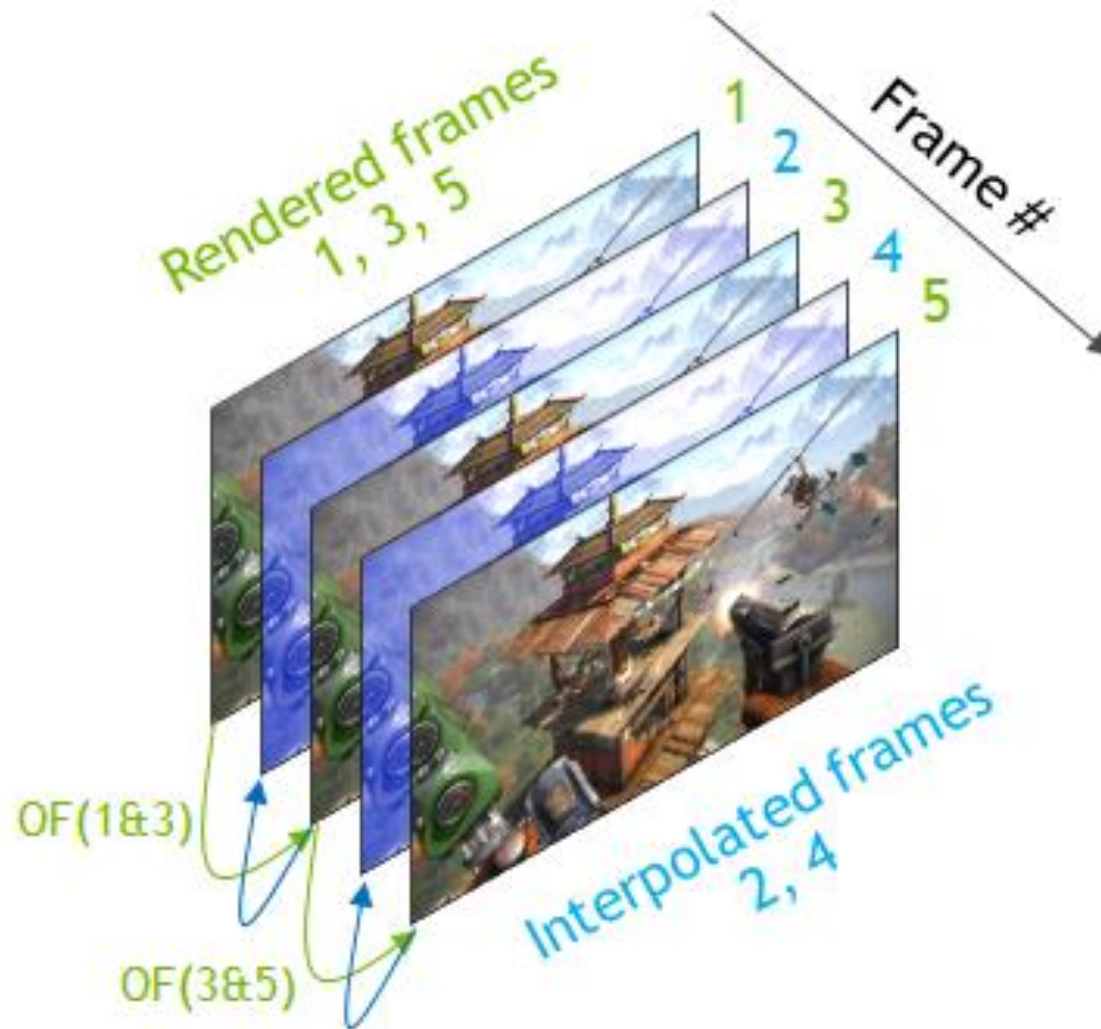
Light-field Camera



Game: AI Super Resolution



Game: Motion Estimation and Compensation



Sound



Extended Reality

