

# Yuri MIKAWA (三河 祐梨)

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Doctoral course student

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My research interest is to realize visual presentation of Augmented Reality (AR) in harmony with the physical world, and then eliminate the visual boundary between real world and presentation of digital information. My research mainly pursues the new form of optical control system and high-speed vision-based tracking-marker design to develop typical AR display technologies of projection mapping, color-forming display, and aerial imaging.

## EDUCATION

<b>Doctoral Course Student of Information Science and Technology</b> , <i>The University of Tokyo</i>	2020 — Current
<b>Master of Information Science and Technology</b> , <i>The University of Tokyo</i>	2020
<b>Bachelor of Engineering</b> , <i>The University of Tokyo</i>	2018
Research Fellowship for Young Scientists DC2, <i>Japan Society for the Promotion of Science (JSPS)</i>	2021 — 2023
Toyota & Dwango scholarship for advanced artificial intelligence students, <i>The University of Tokyo</i>	2020 — 2022
Doctoral Student Special Incentives Program in Graduate School of IST (IST-RA), <i>The University of Tokyo</i>	2020

## SELECTED PUBLICATIONS

### JOURNAL PAPERS

- **Dynamic Projection Mapping for Robust Sphere Posture Tracking Using Uniform/Biased Circumferential Markers** 2020  
[Yuri Mikawa](#), Tomohiro Sueishi, Yoshihiro Watanabe, and Masatoshi Ishikawa  
*IEEE Transactions on Visualization and Computer Graphics*, doi: 10.1109/TVCG.2021.3111085 (Early access)
- **Softness Estimation Based on Imaging of Pushing Action Using Deep Learning** 2018  
[Yuri Mikawa](#), Yasutoshi Makino, and Hiroyuki Shinoda  
*Transactions of the Virtual Reality Society of Japan*, Vol.23, No. 4, pp.239-248 (Japanese)

### CONFERENCE PROCEEDINGS (ORAL PRESENTATION)

- **Far-field Aerial Image Presentation of One Point by a Laser Source using Beam Scanning by Two-axis Galvanometer Mirror** 8 Sep. 2021  
[Yuri Mikawa](#), Masahiro Fujiwara, Takefumi Hiraki, Yasutoshi Makino, Hiroyuki Shinoda  
*Proceedings of SICE Annual Conference 2021*, pp. 137-143, Sep. 8, 2021, Online [SICE Young Author's Award]
- **Distant Aerial Image Presentation Using Two Separate Rays of Binocular Parallax Images** 12 Dec. 2020  
[Yuri Mikawa](#), Masahiro Fujiwara, Hiroyuki Shinoda  
*Proceedings of The 27th International Display Workshops (IDW '20)*, Online
- **Projection Mapping System to a Widely Dynamic Sphere with Circumferential Markers** 7-9 Jul. 2020  
[Yuri Mikawa](#), Tomohiro Sueishi, Yoshihiro Watanabe, Masatoshi Ishikawa  
*Proceedings of IEEE International Conference on Multimedia and Expo (ICME2020)*, Online [Acceptance rate: 14.6 %]
- **Laser-based drawing method for posture-free objects by photochromic active marking with high-speed coaxial gaze control** 5 Feb. 2020  
[Yuri Mikawa](#), Tomohiro Sueishi, Tomohiko Hayakawa, Masatoshi Ishikawa  
*Proceedings of SPIE Photonics West 2020, San Francisco, USA*

### DEMONSTRATIONS

- **VarioLight: Hybrid Dynamic Projection Mapping Using High-speed Projector and Optical Axis Controller** 4-7 Dec. 2018  
[Yuri Mikawa](#), Tomohiro Sueishi, Yoshihiro Watanabe, Masatoshi Ishikawa  
Proceedings of SIGGRAPH Asia 2018 Emerging Technologies (p.17), Tokyo, Japan

### POSTERS

- **Laser-based Photochromic Drawing Method for Rotating Objects with High-speed Visual Feedback** 23-27 Mar. 2019  
[Yuri Mikawa](#), Tomohiro Sueishi, Tomohiko Hayakawa, Masatoshi Ishikawa  
*Proceedings of 2019 IEEE Conference on Virtual Reality and 3D User Interfaces (VR)*, Osaka, Japan

## ACADEMIC GRANTS

Japan Science and Technology Agency (JST) ACT-X, Hardware for Resilience [JPY 2 mil p.a.]	2021-2024
Grant-in-Aid for JSPS Research Fellows [JPY 1.5 mil]	2021-2023
Microsoft Research Asia Collaborative Research for PhD Student 2021 (D-CORE 2021) [JPY 1 mil]	2021

## STUDYING ABROAD EXPERIENCE

One-week visiting program at National Taiwan University (NTU)	2019
Short study abroad program in University of California, San Diego (UCSD)	2016