Oral presentation | Code-sharing session | 【CS.1】 Code-sharing Session 3.3 & 4.4

[18p-E215-1~9]【CS.1】 Code-sharing Session 3.3 &4.4

Ryoichi Horisaki(Osaka Univ.), Hirotsugu Yamamoto(Utsunomiya Univ.)
Wed. Sep 18, 2019 1:15 PM - 4:15 PM E215 (E215)

△ : Presentation by Applicant for JSAP Young Scientists Presentation Award

▲ : English Presentation

▼ : Both of Above

No Mark : None of Above

2:45 PM - 3:15 PM

▲[18p-E215-5][INVITED] High-Resolution 3D Modeling using Photometric and Polarimetric Techniques

〇Boxin Shi[1] (1.Peking University)
Keywords:shape from polarization, photometric stereo

3D modeling is a fundamental problem in computer vision. The emergence of low-cost depth sensor such as the Kinect brings various computer vision problems to the 3D world, but the resolution of 3D information it provides is significantly lower than what a modern 2D camera can capture. This presentation will introduce how active and passive illumination changes reveal high-resolution 3D information in real-world scenes, which is equivalent to the number of pixels of a 2D imaging sensor. By introducing state-of-the-art photometric stereo and shape from polarization techniques, this presentation hopes to provide inspiring cues for designing the next-generation 3D camera.