CSGI

Y. SATO LAB.
[Computer Vision]

Center for Socio-Global Informatics
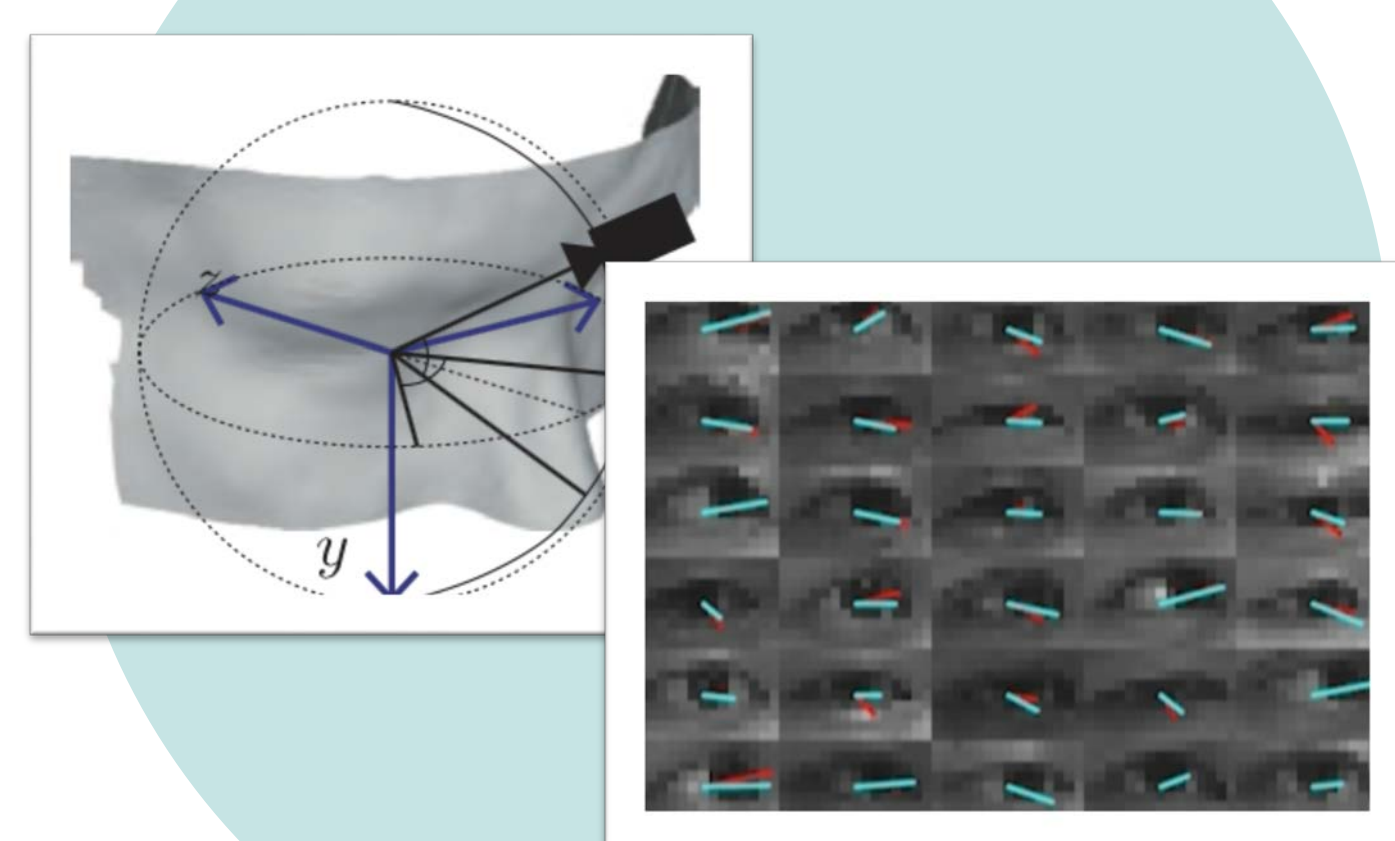http://www.hci.iis.u-tokyo.ac.jp

Visual Media Engineering

Department of Information and Communication Engineering, Graduate School of Information Science and Technology
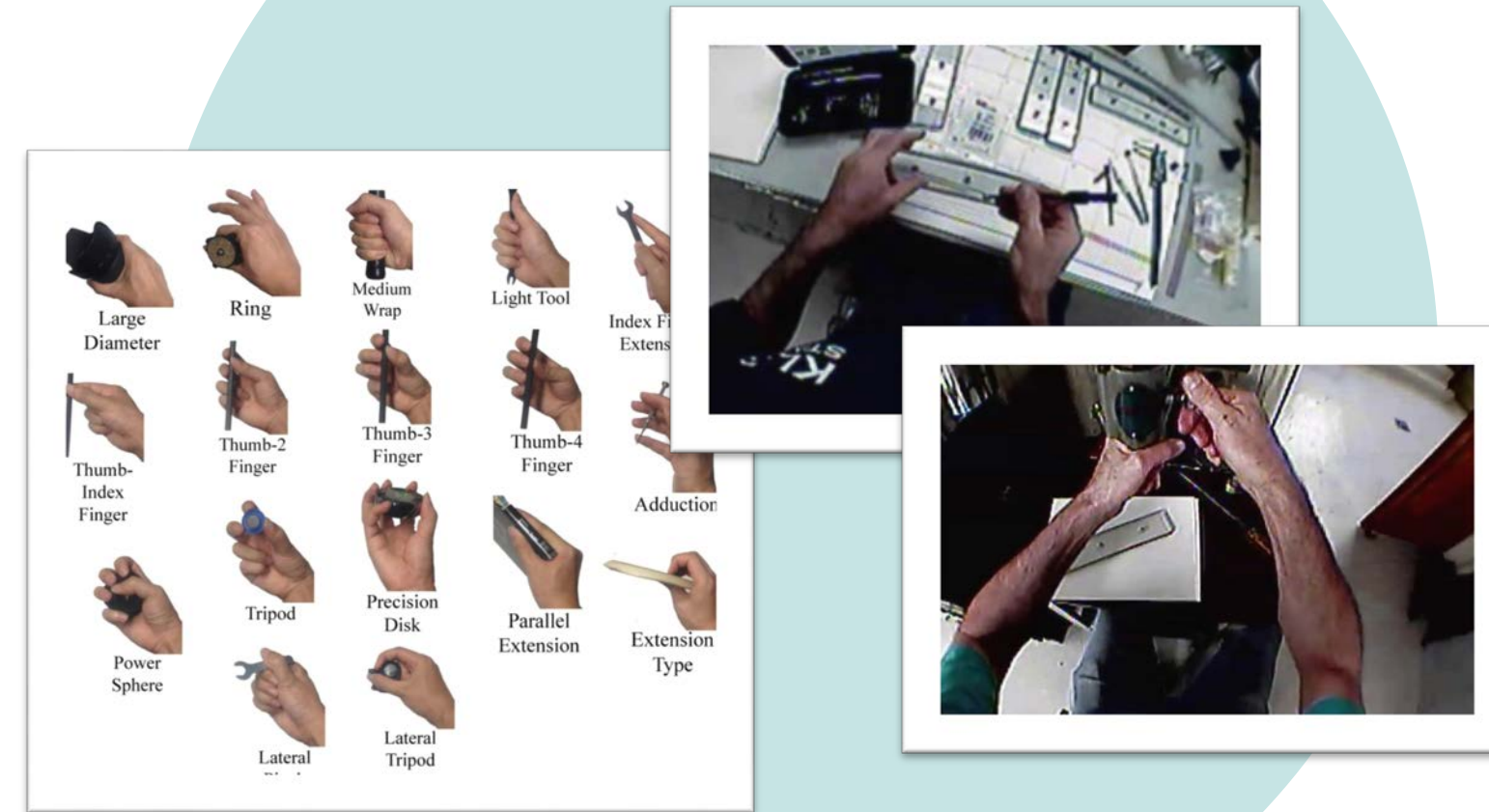Emerging Design and Informatics Course, Graduate School of Interdisciplinary Information Studies

Computer Vision for Human Behavior Sensing and Material Perception Analysis

Toward development of information systems which can casually offer assistance to those who need it, real-time sensing of human behaviors including visual focus of attention is important. In our group, we develop computer vision techniques for sensing and understanding our visual focus of attention and activities in real world, and propose their applications to human-computer interaction. In addition, we have been studying sensing and modeling of real object appearance for material perception analysis.
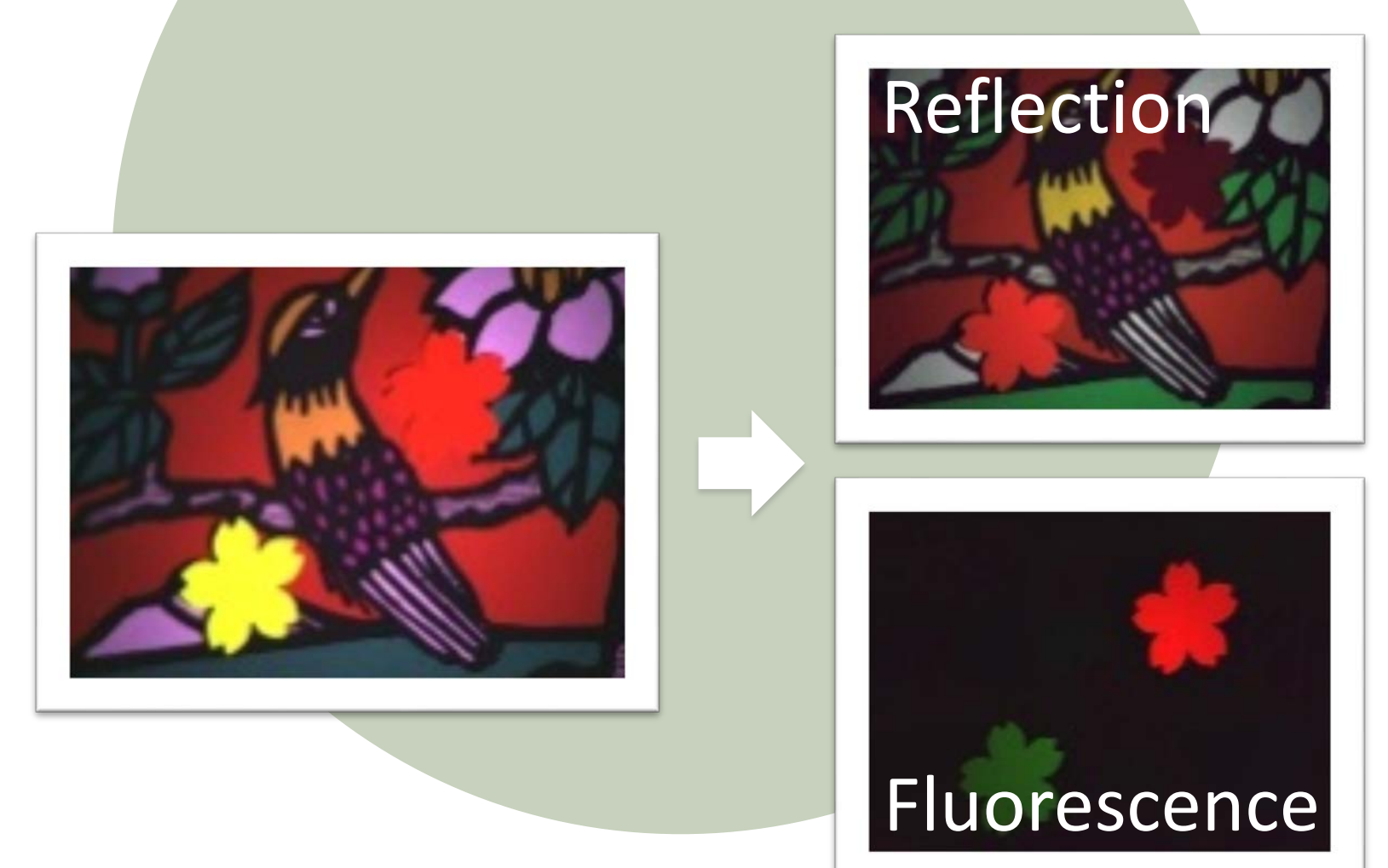
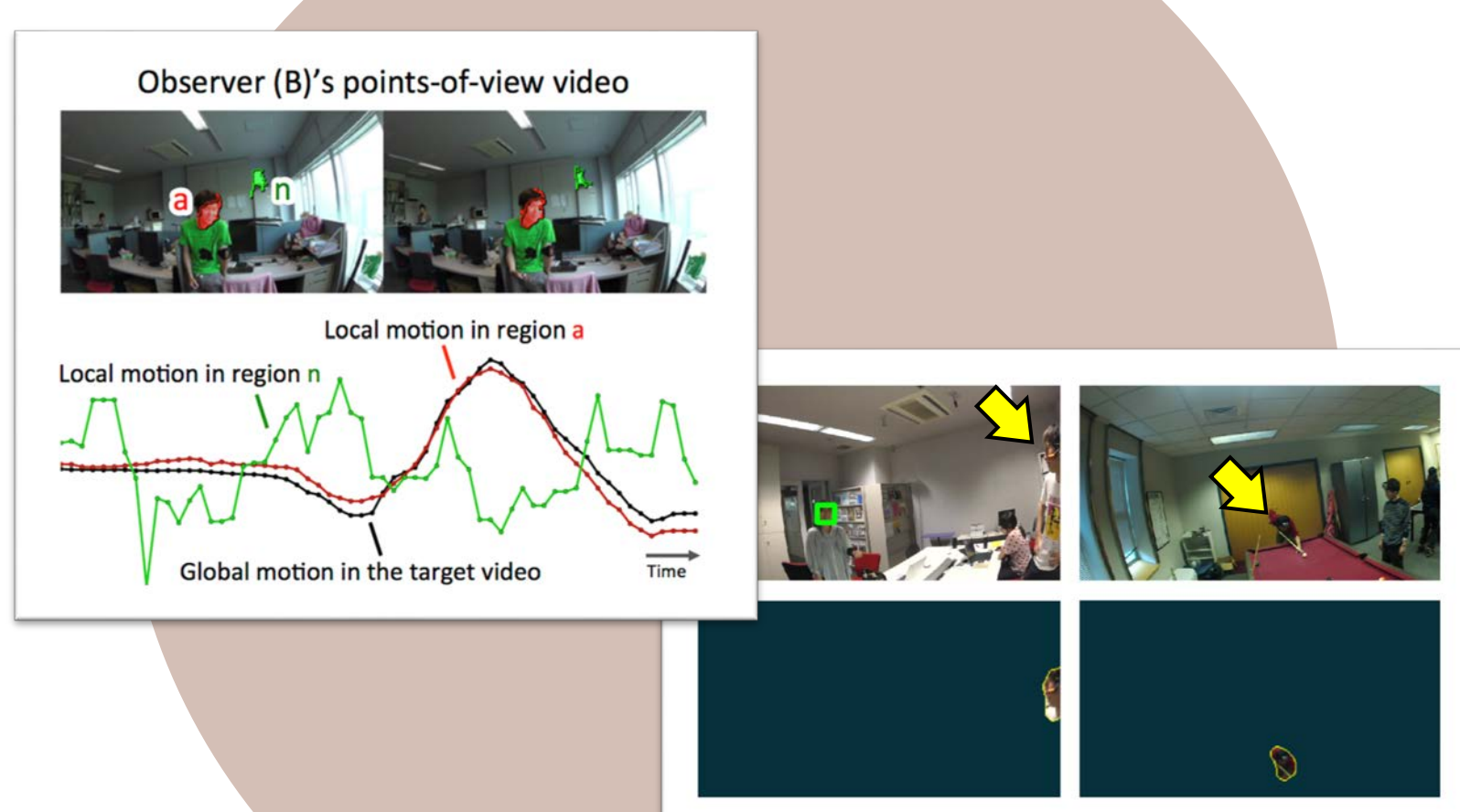### Understanding human gaze and activities

3D gaze estimation from eyes

Grasp recognition for first-person videos

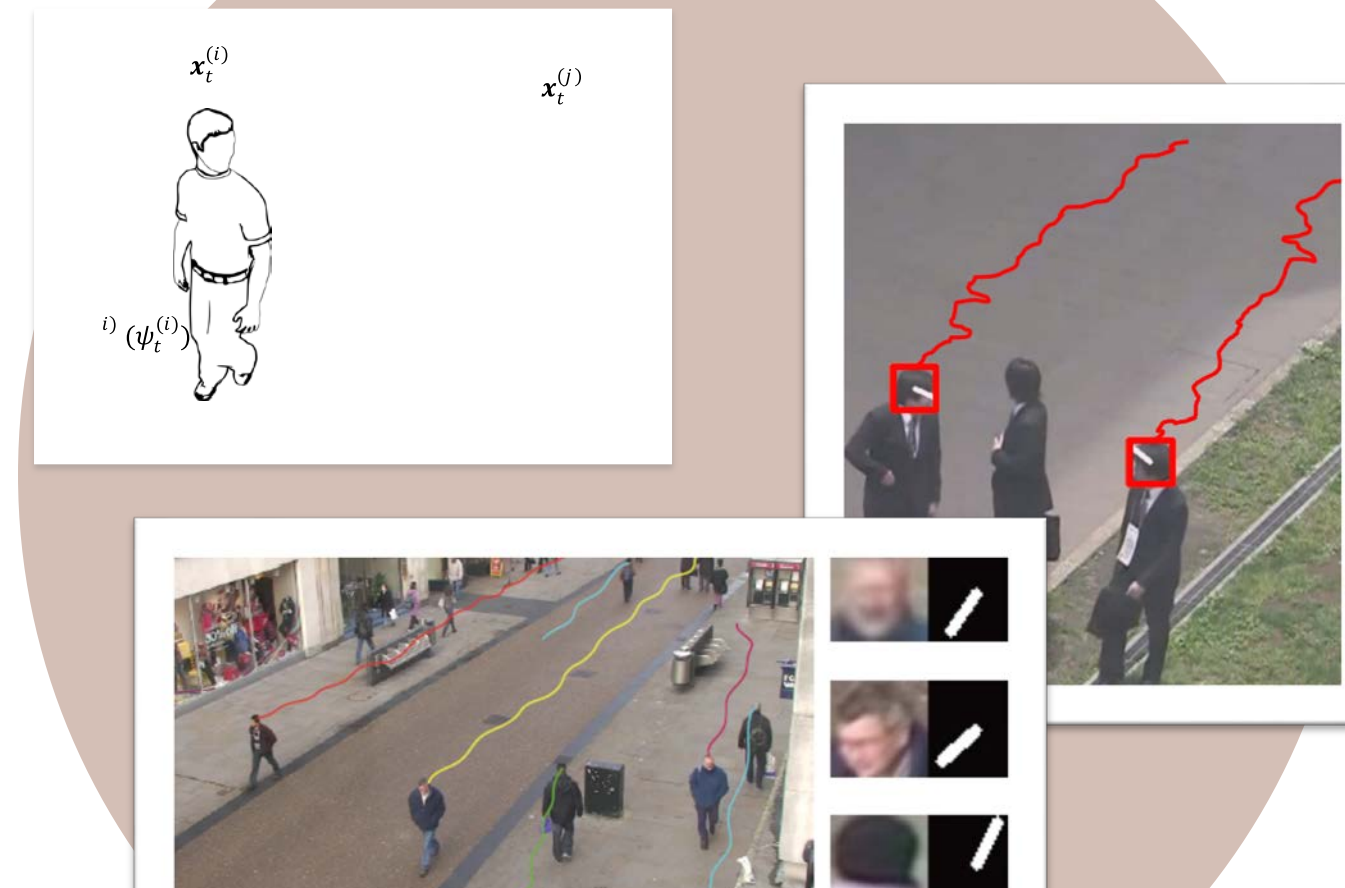### Spectral sensing and analysis of reflectance and fluorescence

Reflection

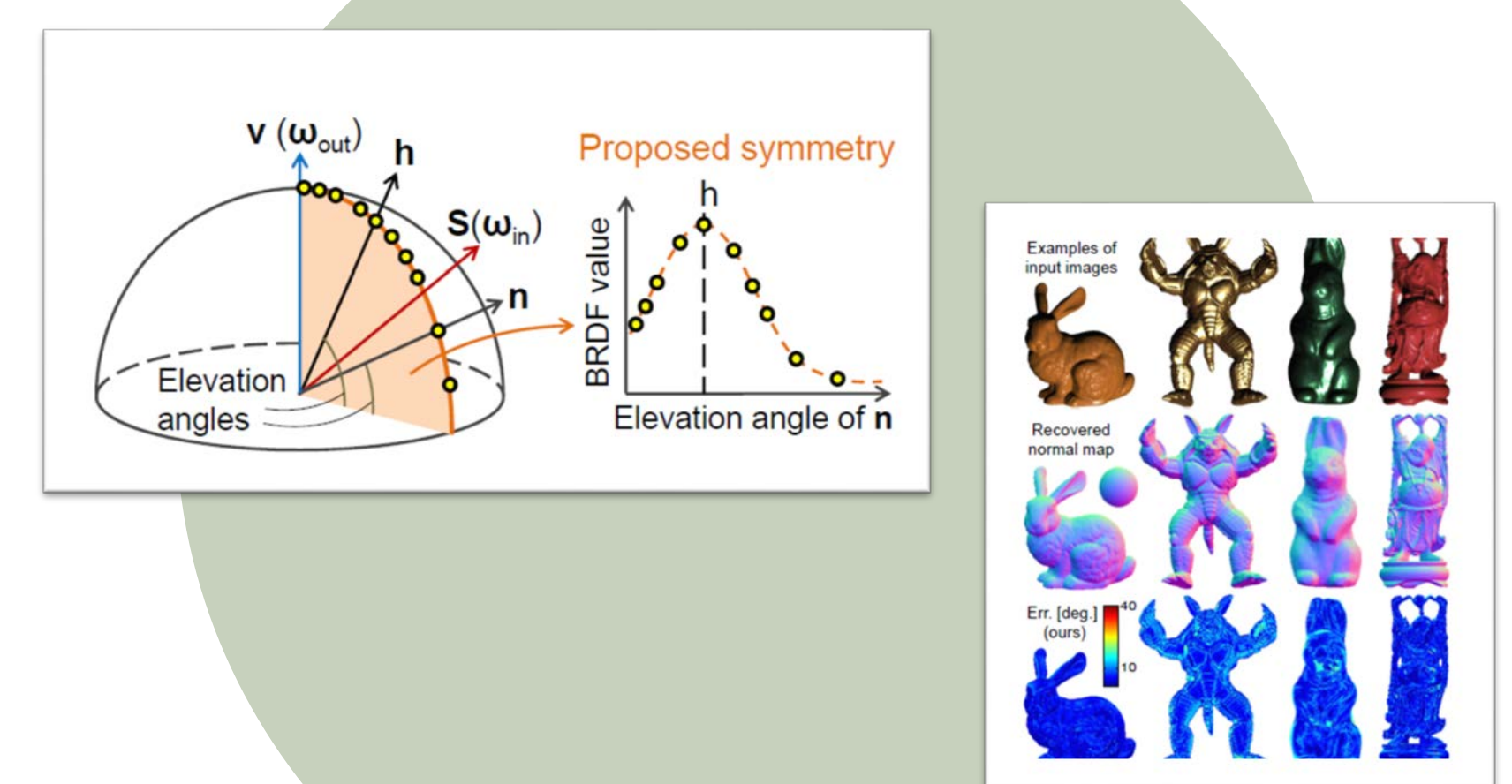Fluorescence

Analyzing reflectance and illumination

Recognizing human-computer, human-human interactions

Person identification for first-person videos

Social group discovery from surveillance videos

Photometric stereo for detailed shape recovery