

# Cinematic Virtual Reality with Head-Motion Parallax

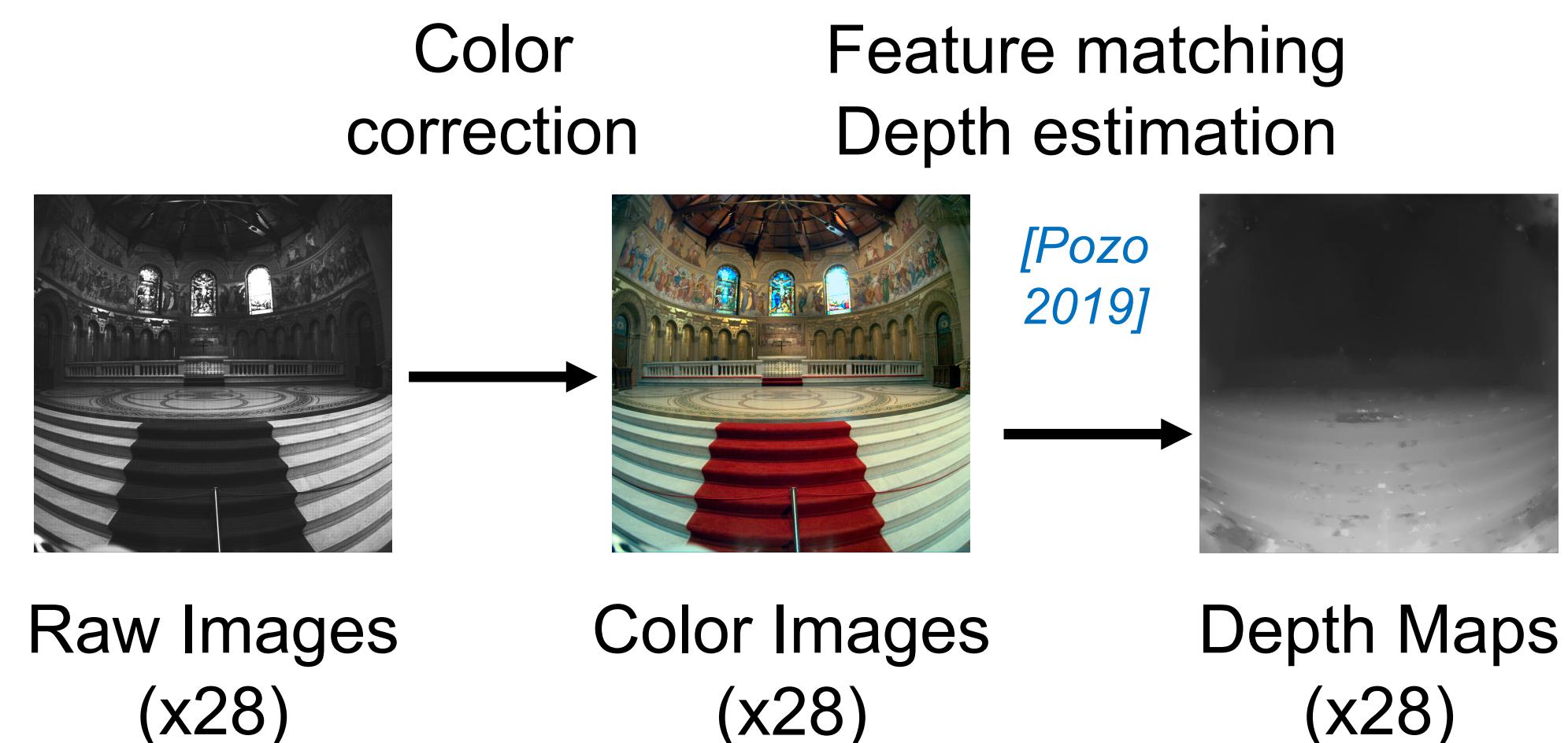
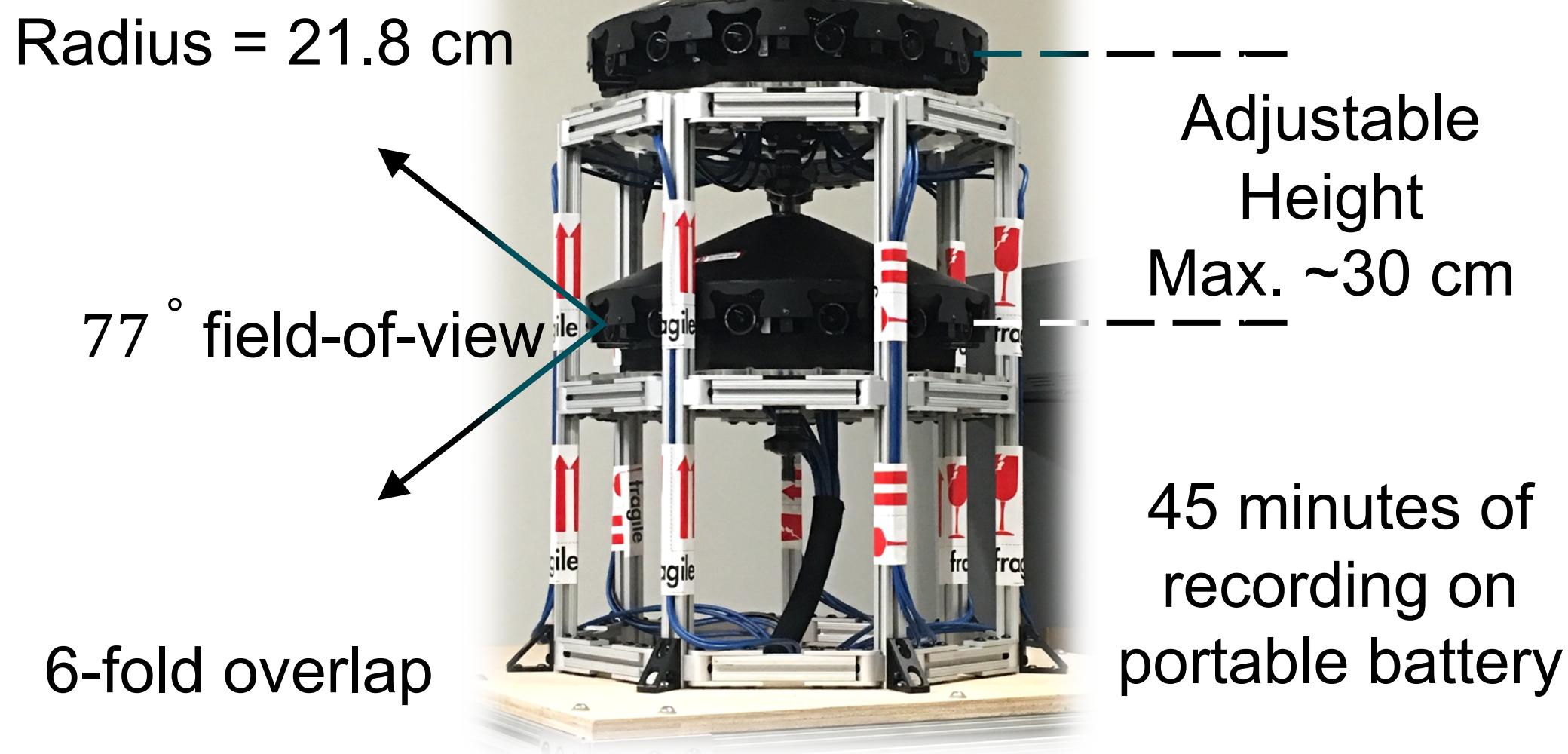
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## Abstract

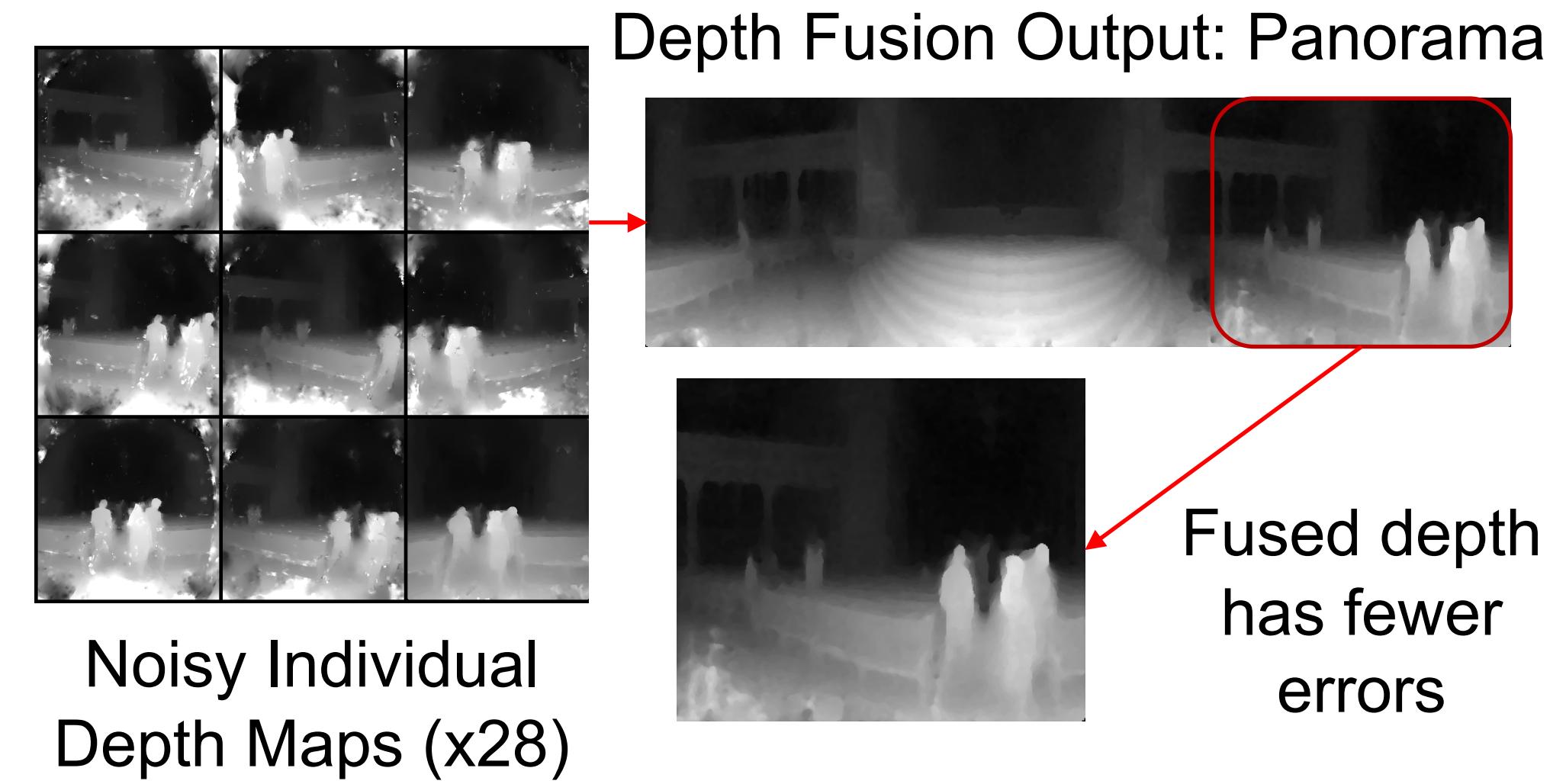
- Head-motion parallax plays a vital role in visual comfort and immersion in VR
- We build a two-level camera rig to support head-motion parallax for natural scenes
- We propose a novel depth-fusion algorithm to robustly stitch panoramas from error-prone rig depth maps

## Two-Level Camera Rig

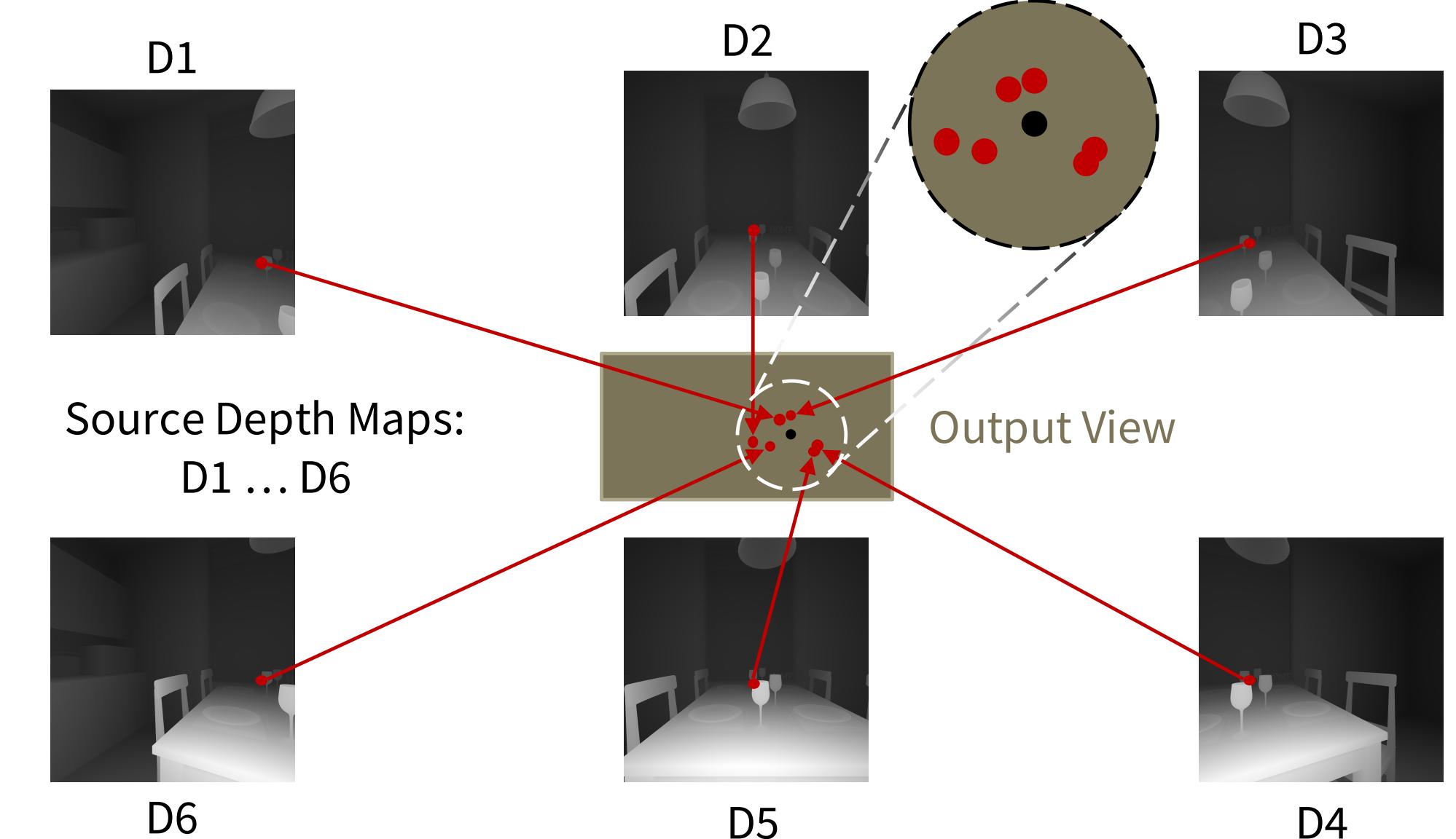


A. P. Pozo et al., "An integrated 6DoF video camera and system design", ACM Trans. Graph. 2019

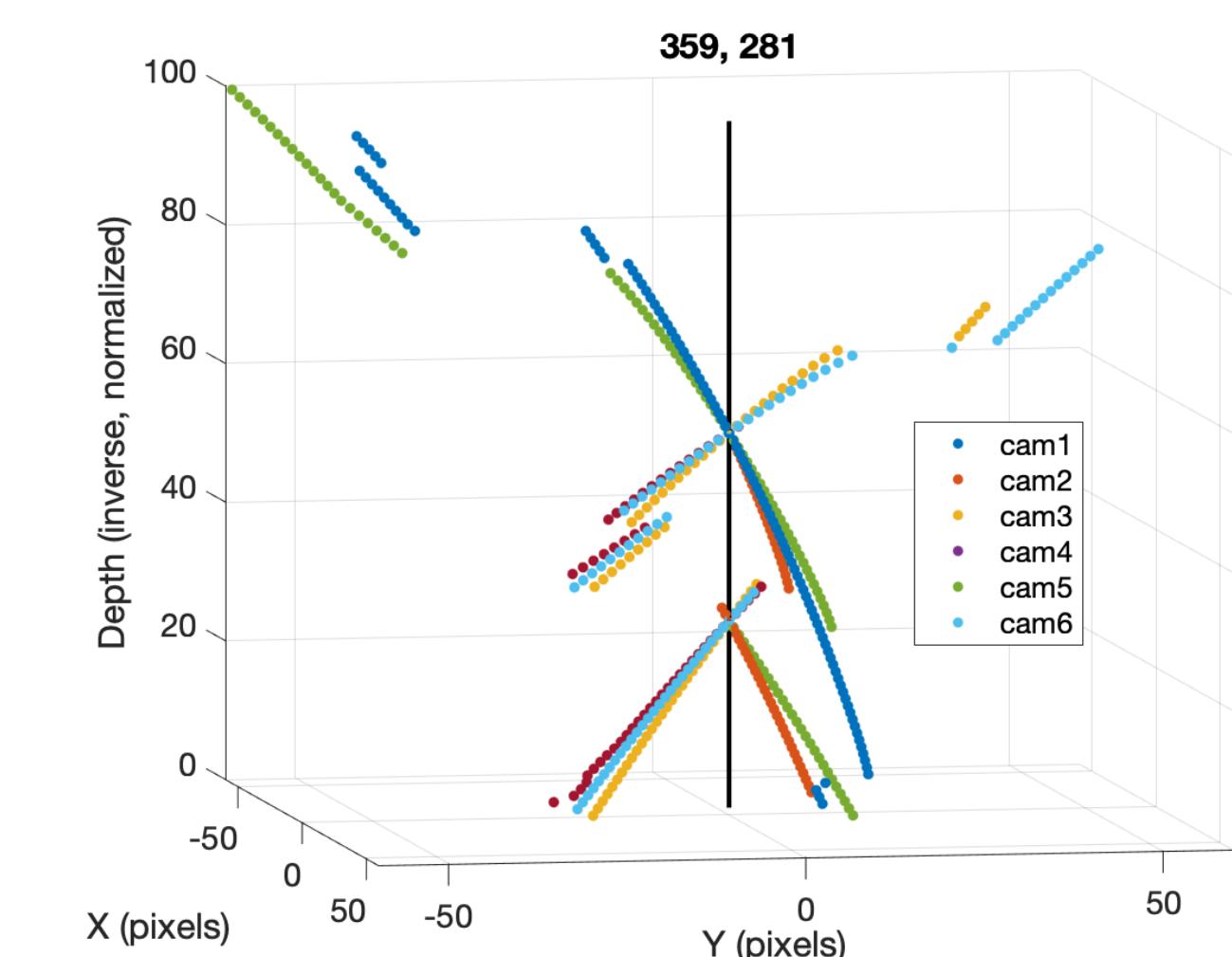
## Motivation



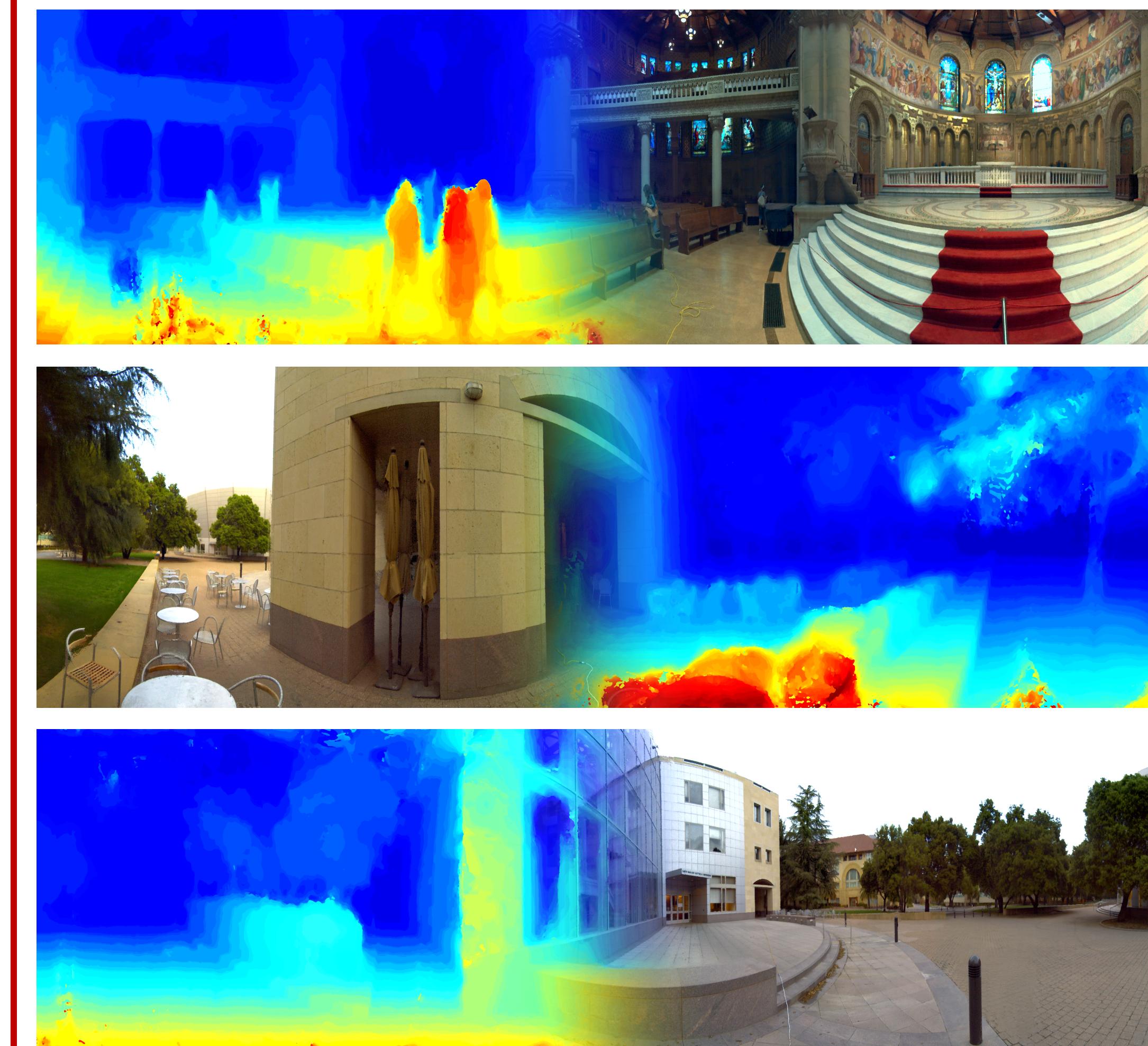
## Depth Fusion Algorithm



## Extracting Occluded Depths



## Stitched Panoramas



## Rendered Head-Motion Parallax

