

Learning to See and Generate People

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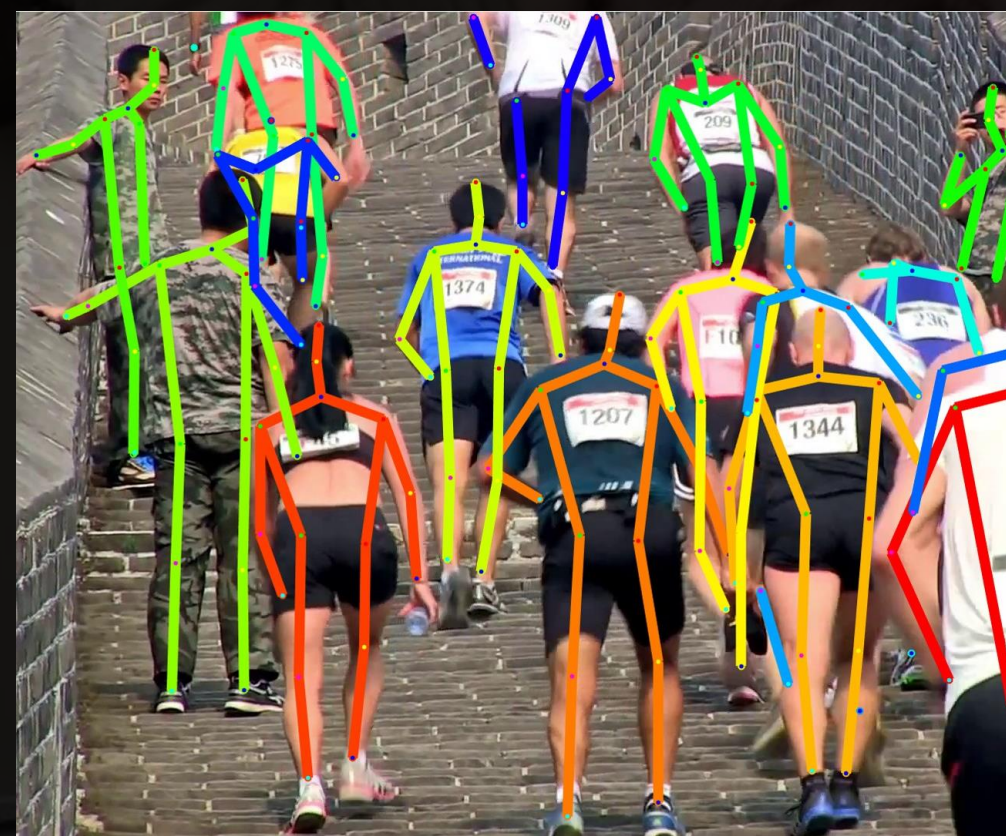
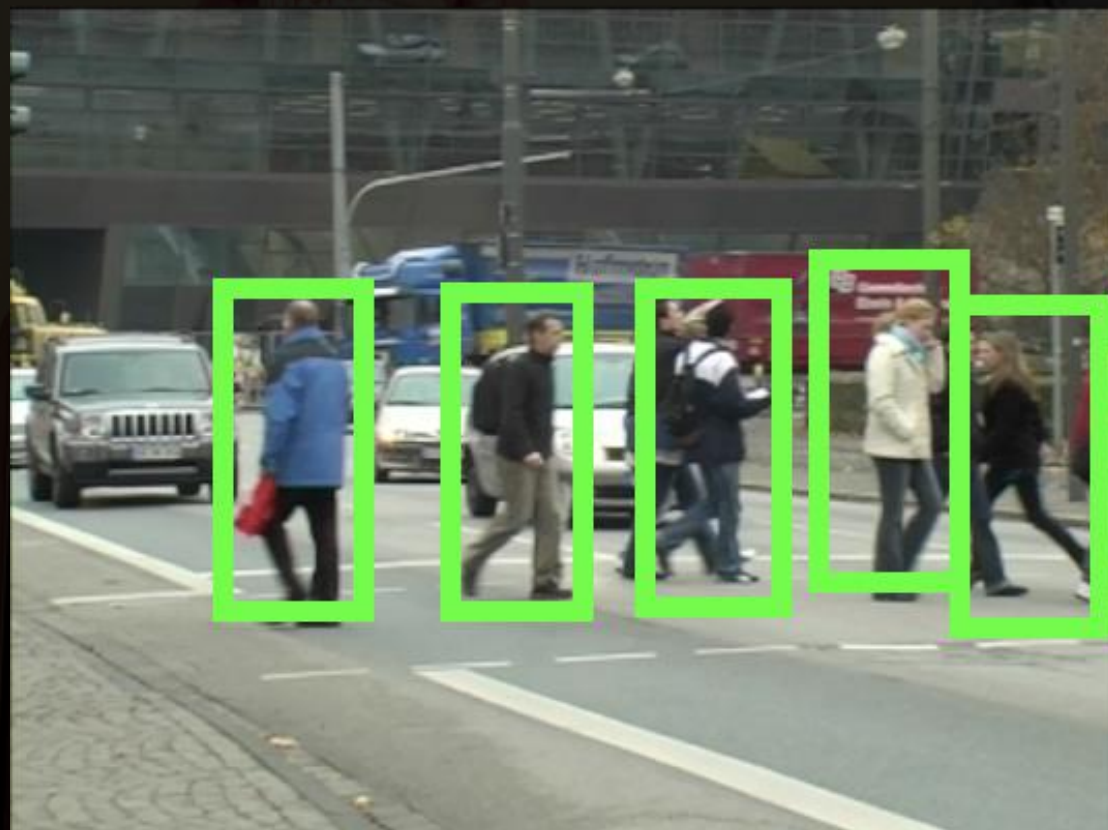




- Reconstruction and Analysis

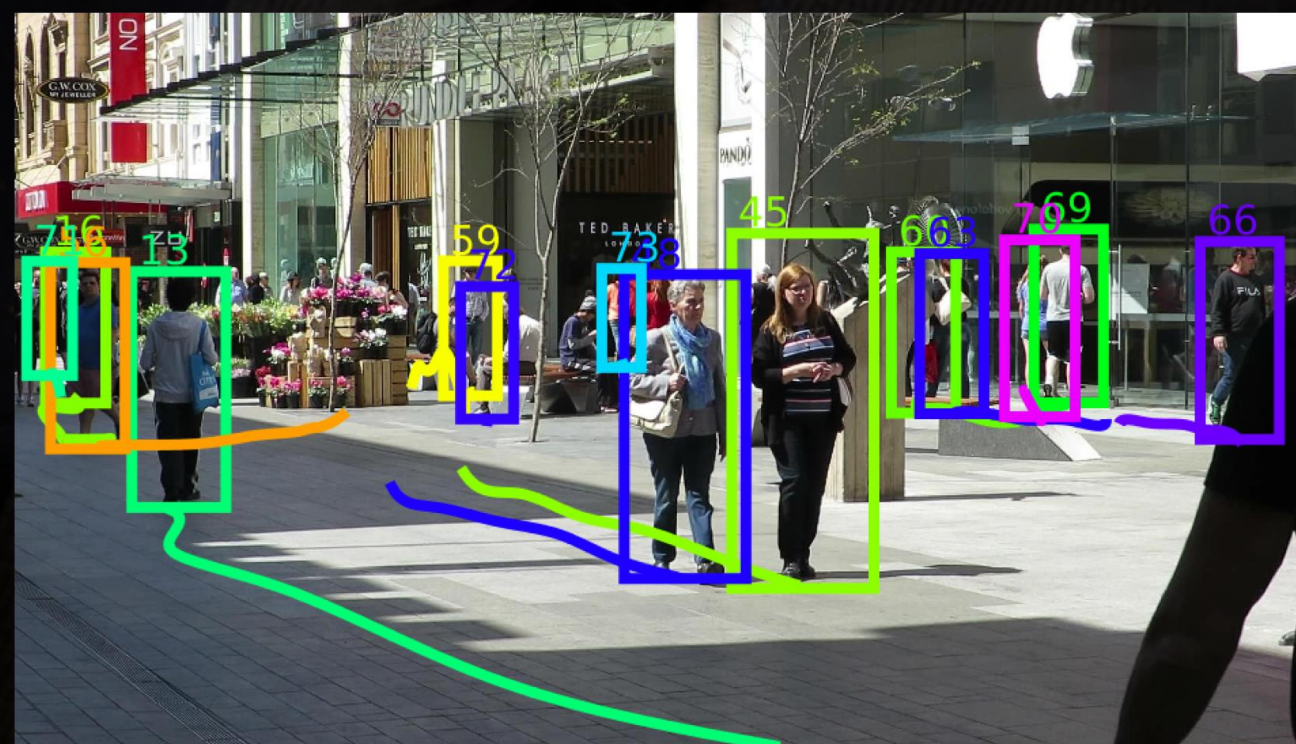
- Generation

- Reconstruction and Analysis



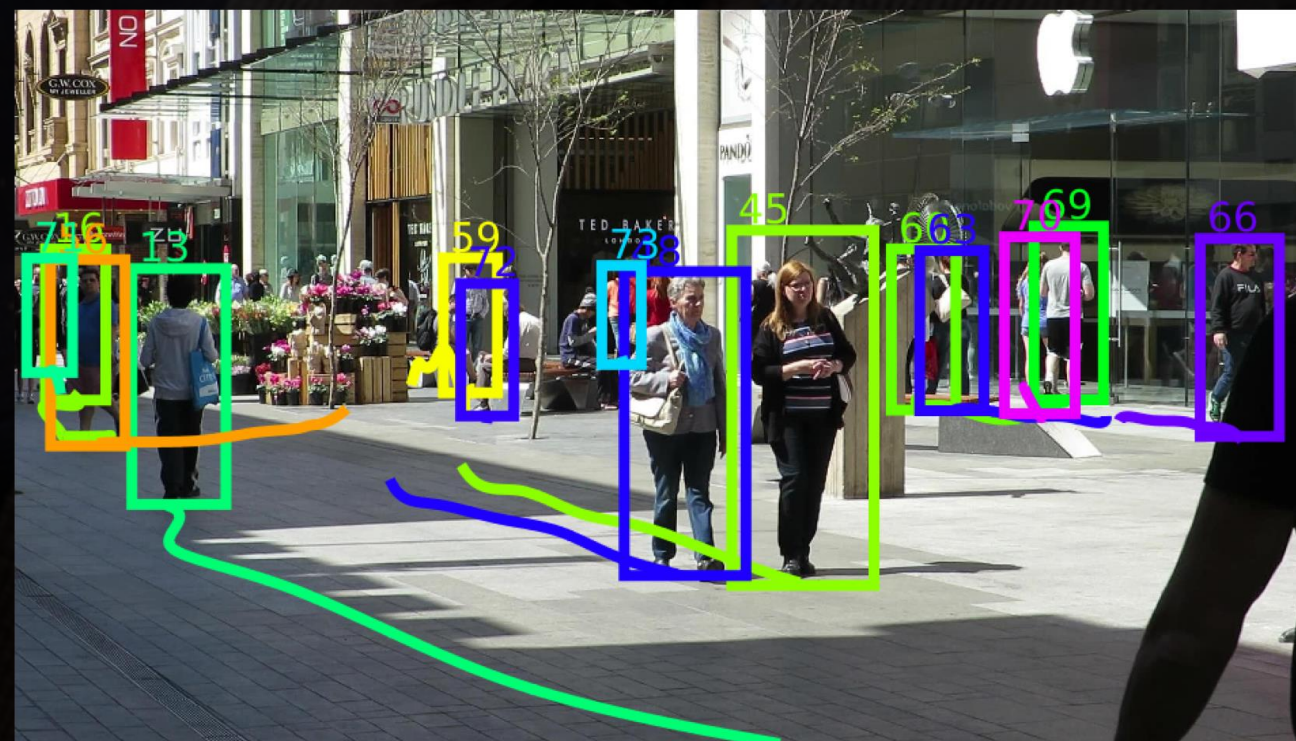
- Generation

- Reconstruction and Analysis



- Generation

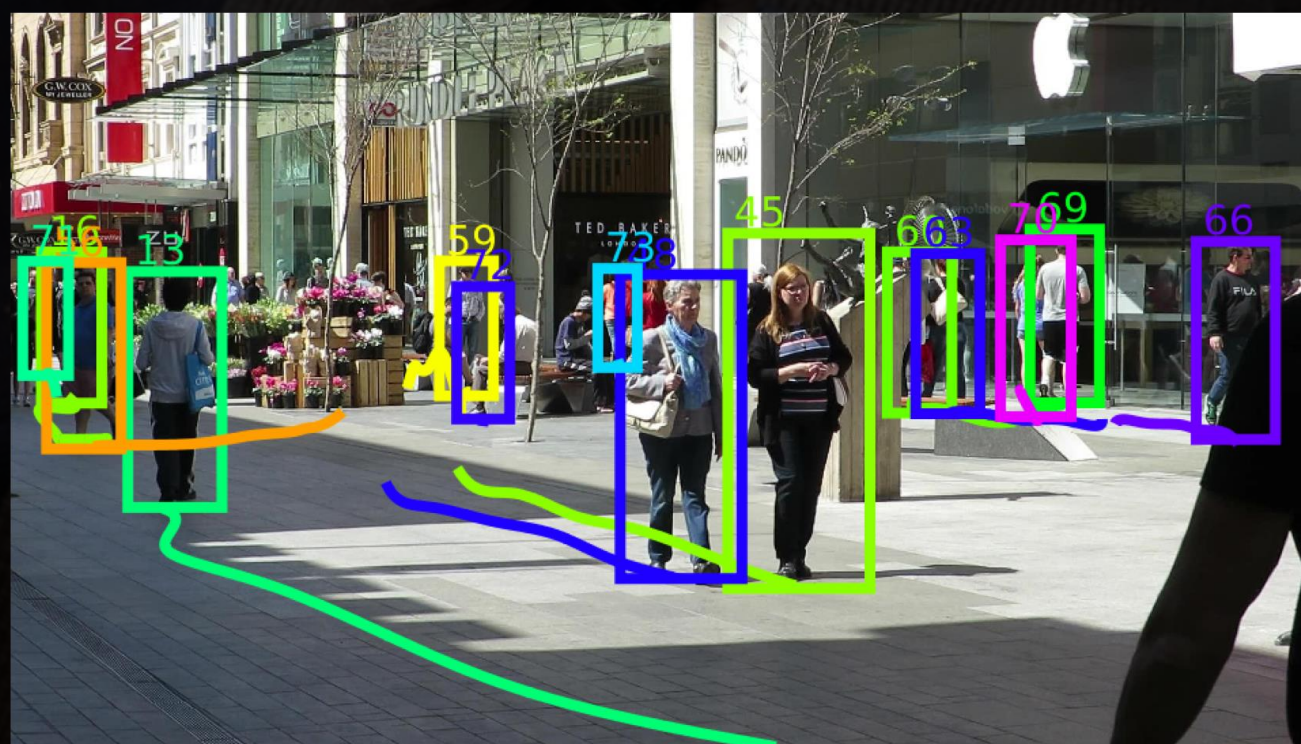
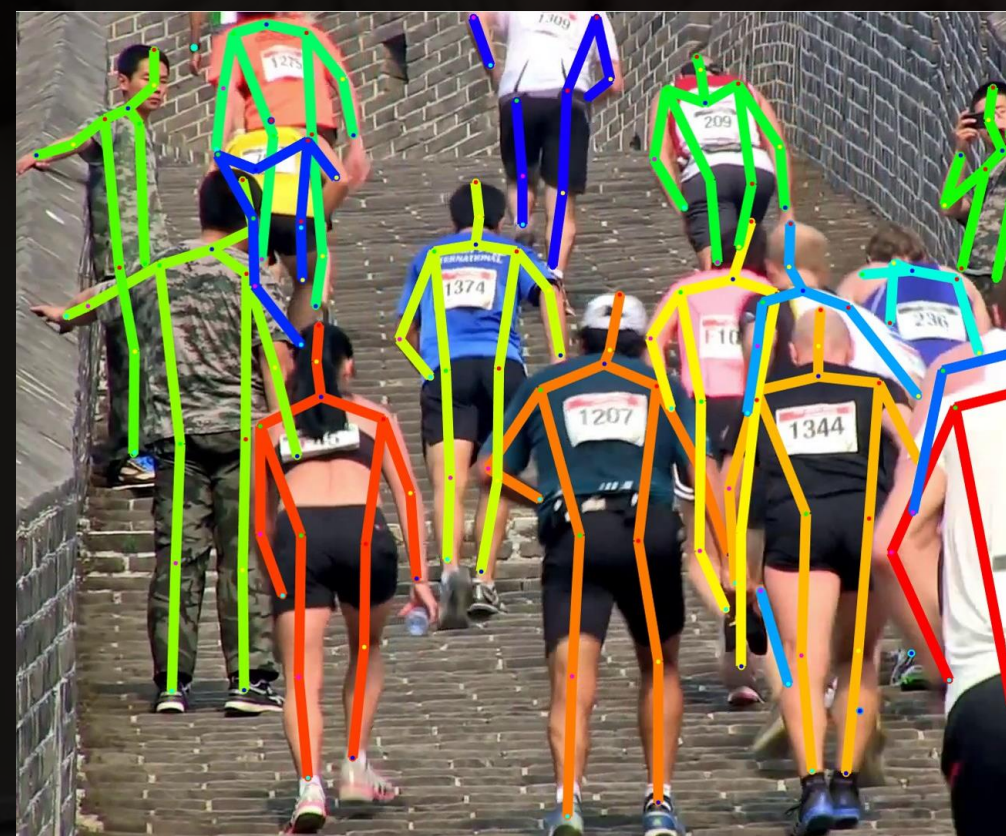
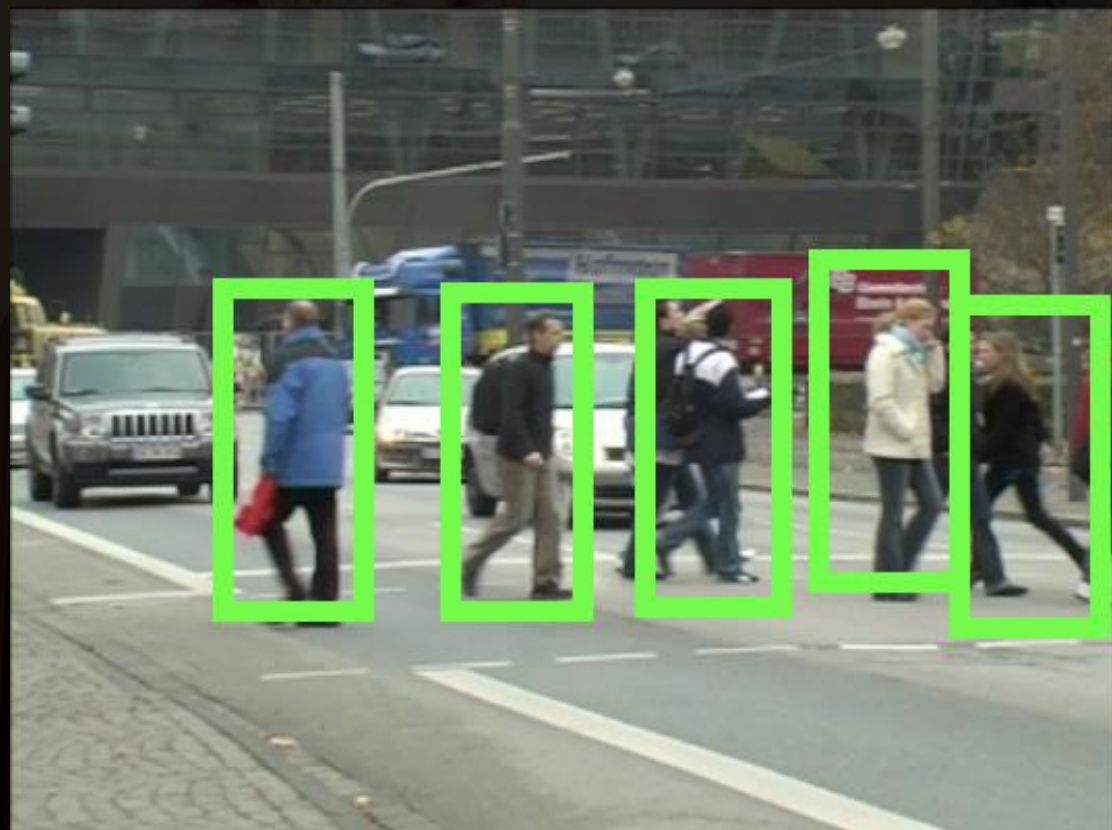
- Reconstruction and Analysis



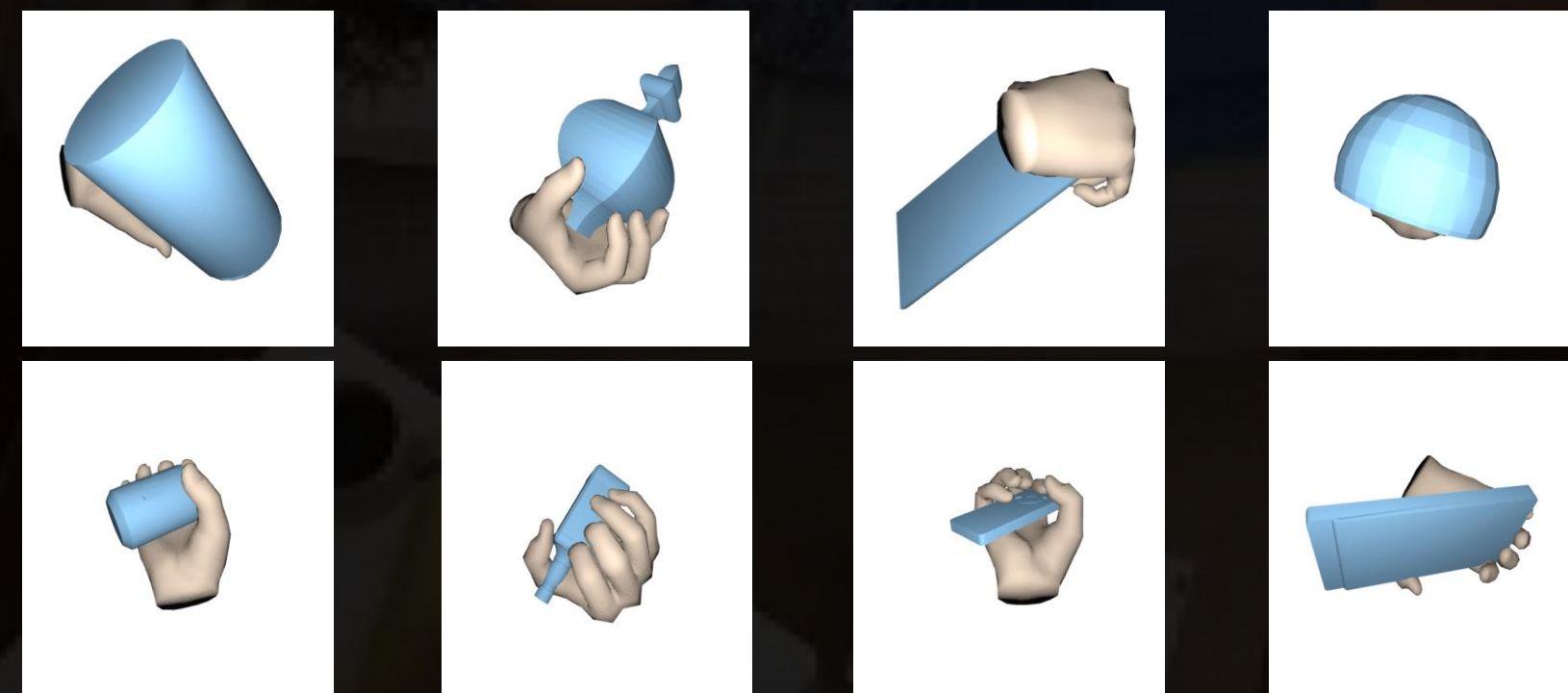
- Generation



- Reconstruction and Analysis

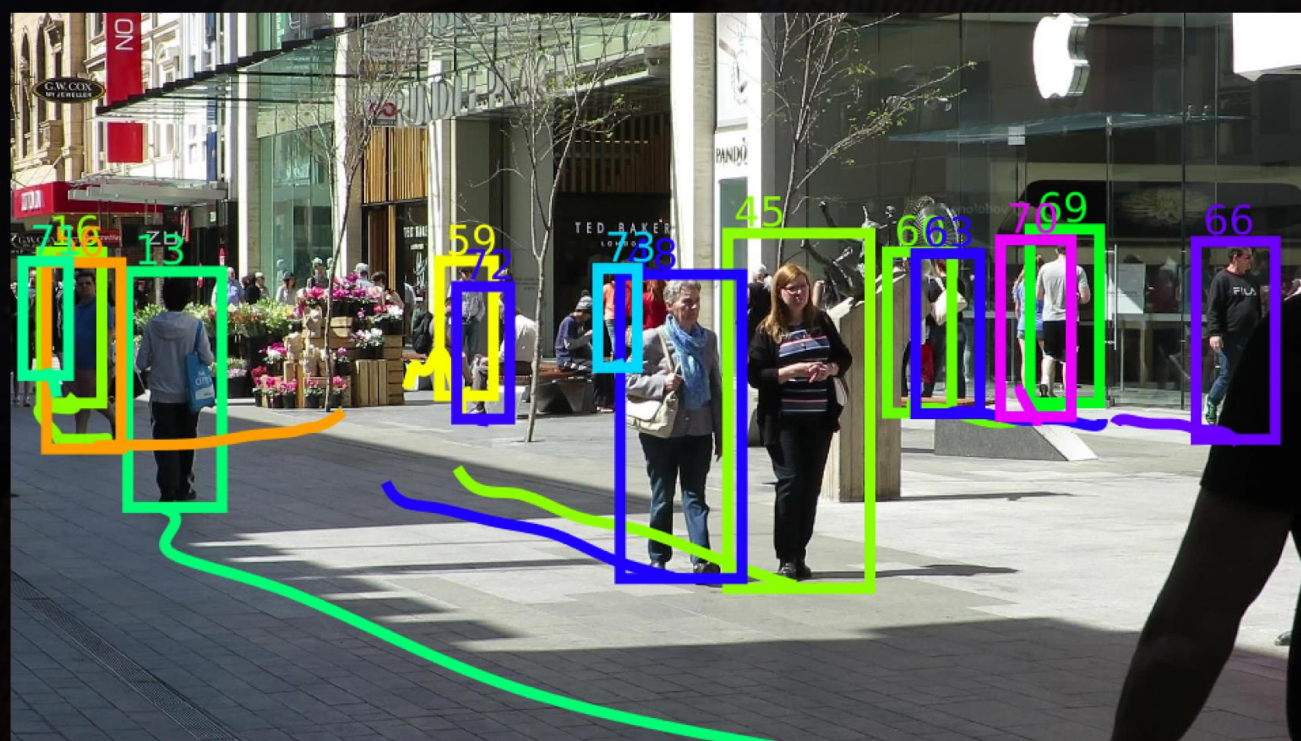
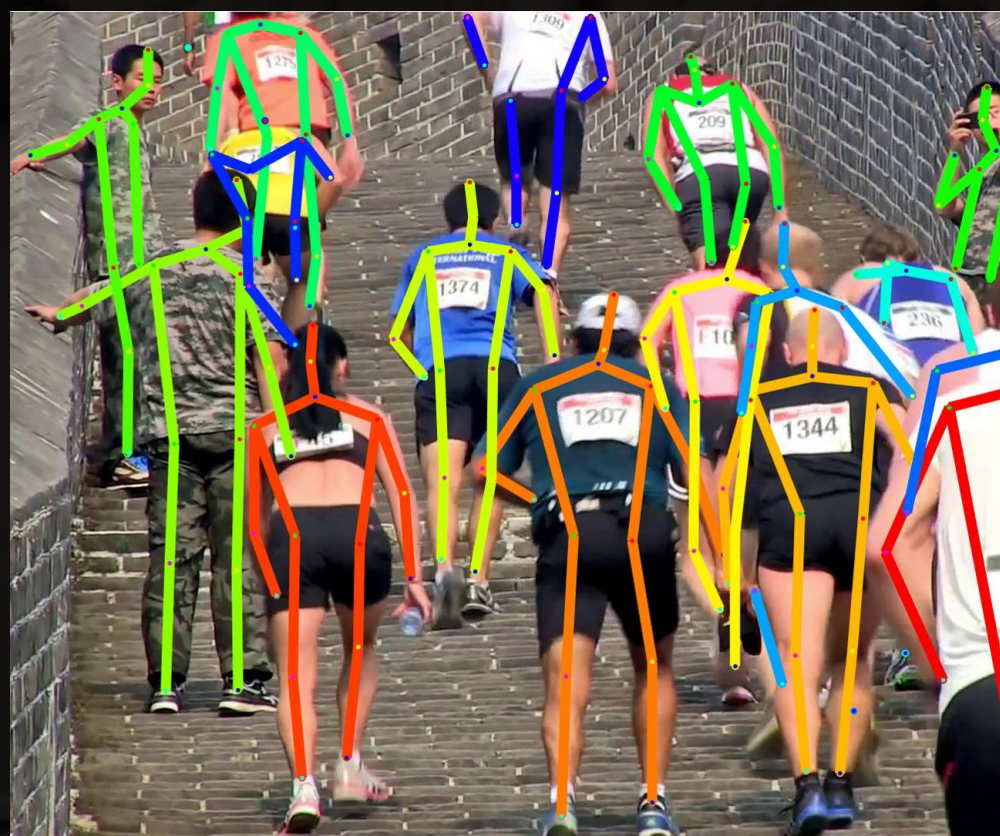


- Generation

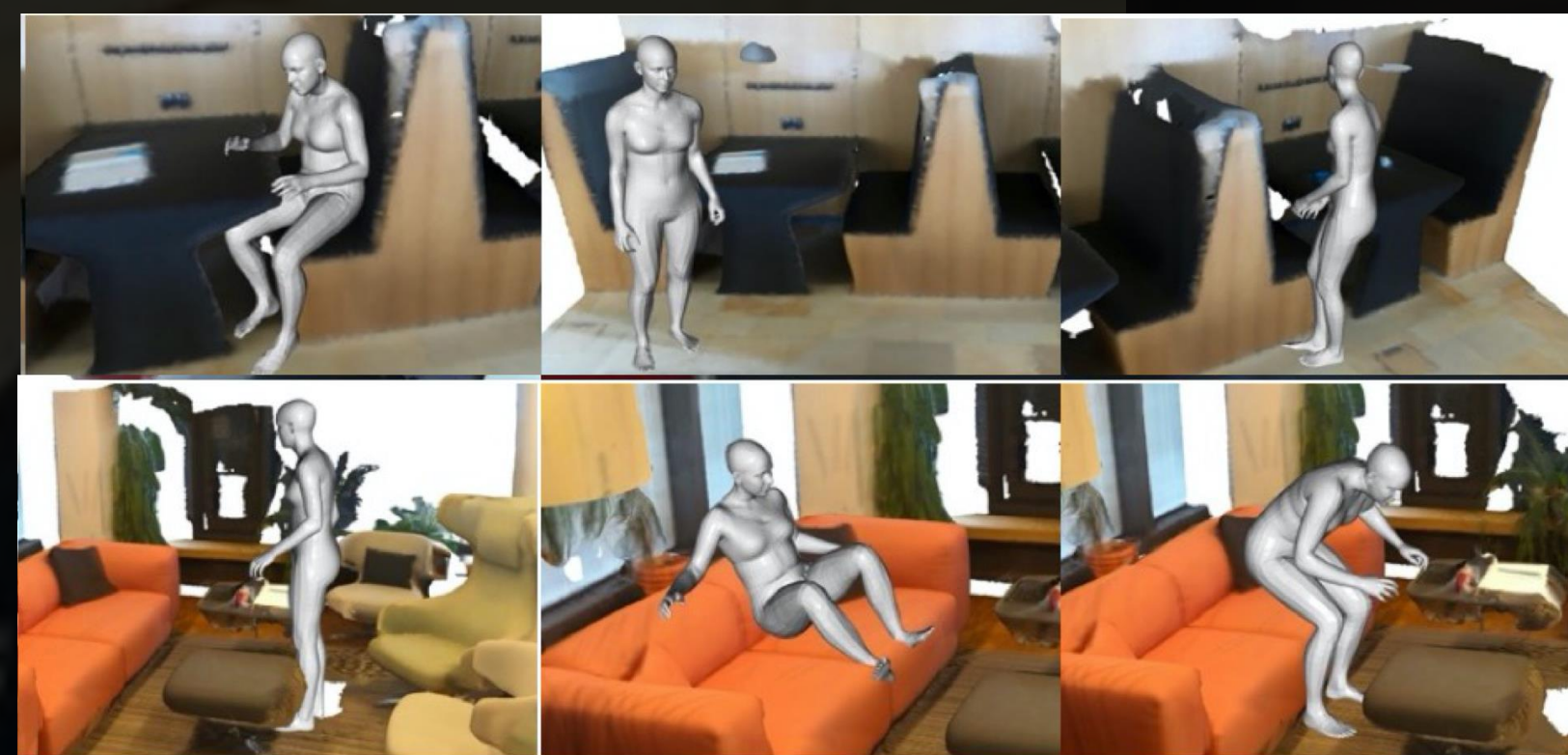
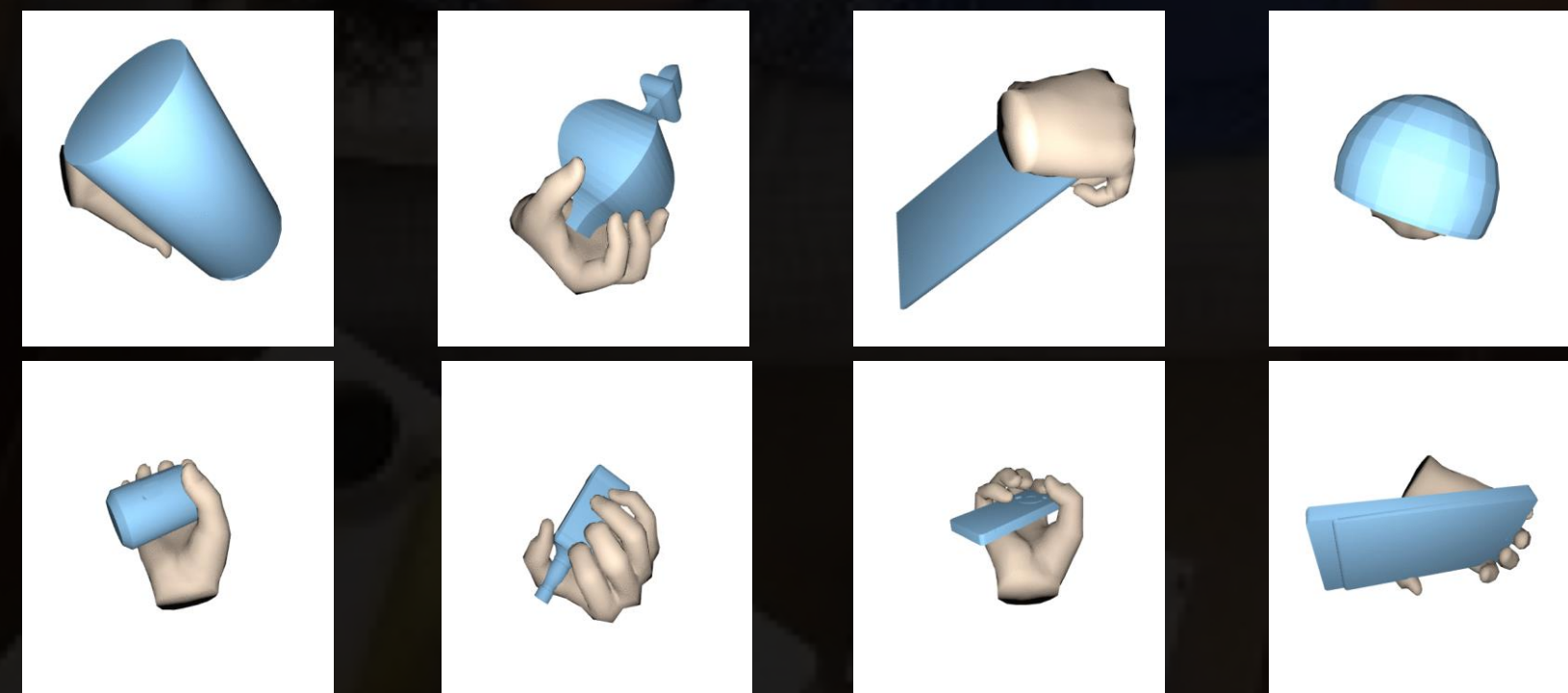




- Reconstruction and Analysis



- Generation



A Digital Replica of Indoor Spaces [1, 2]



Replica [1]

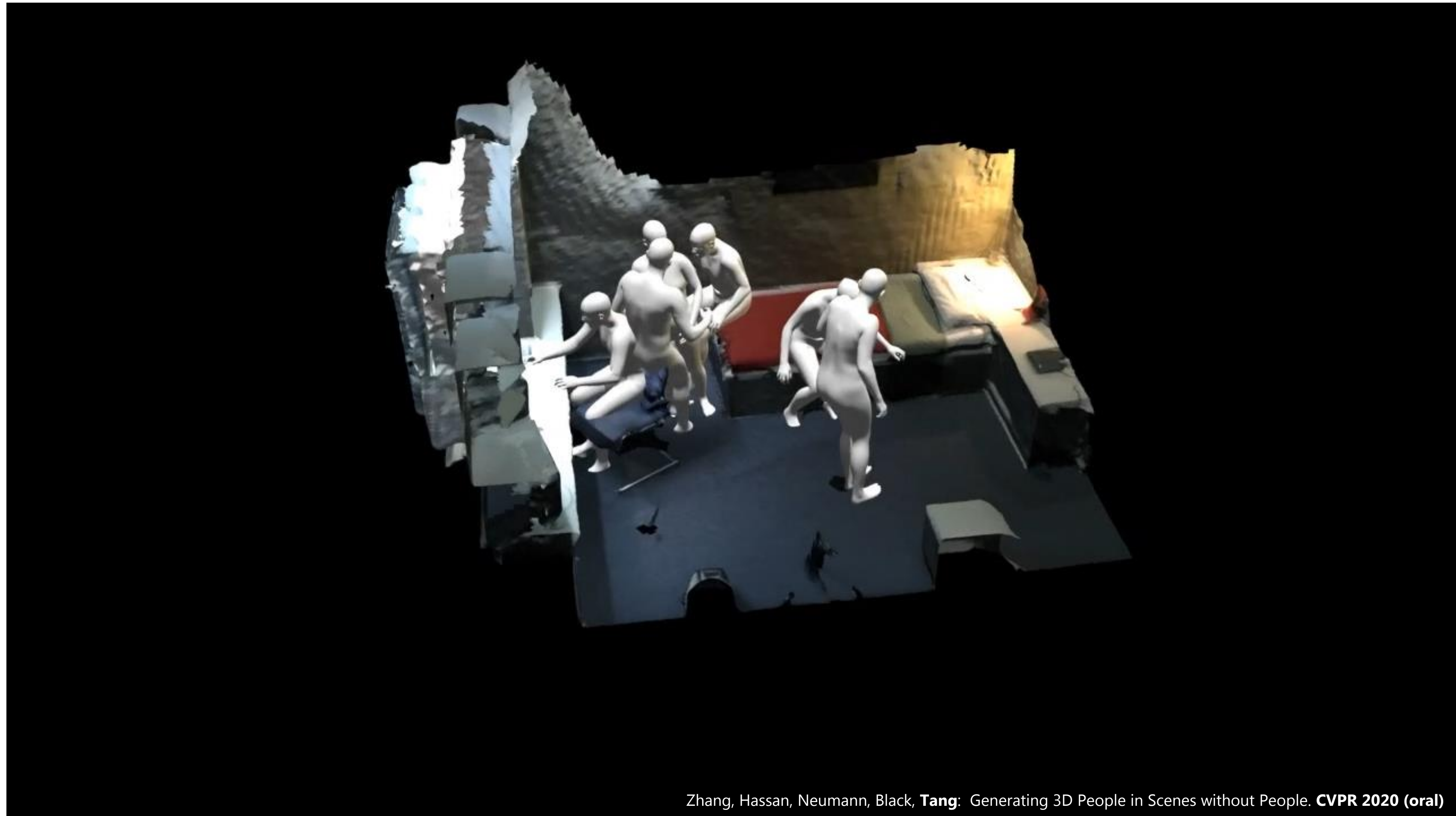


Matterport3D [2]

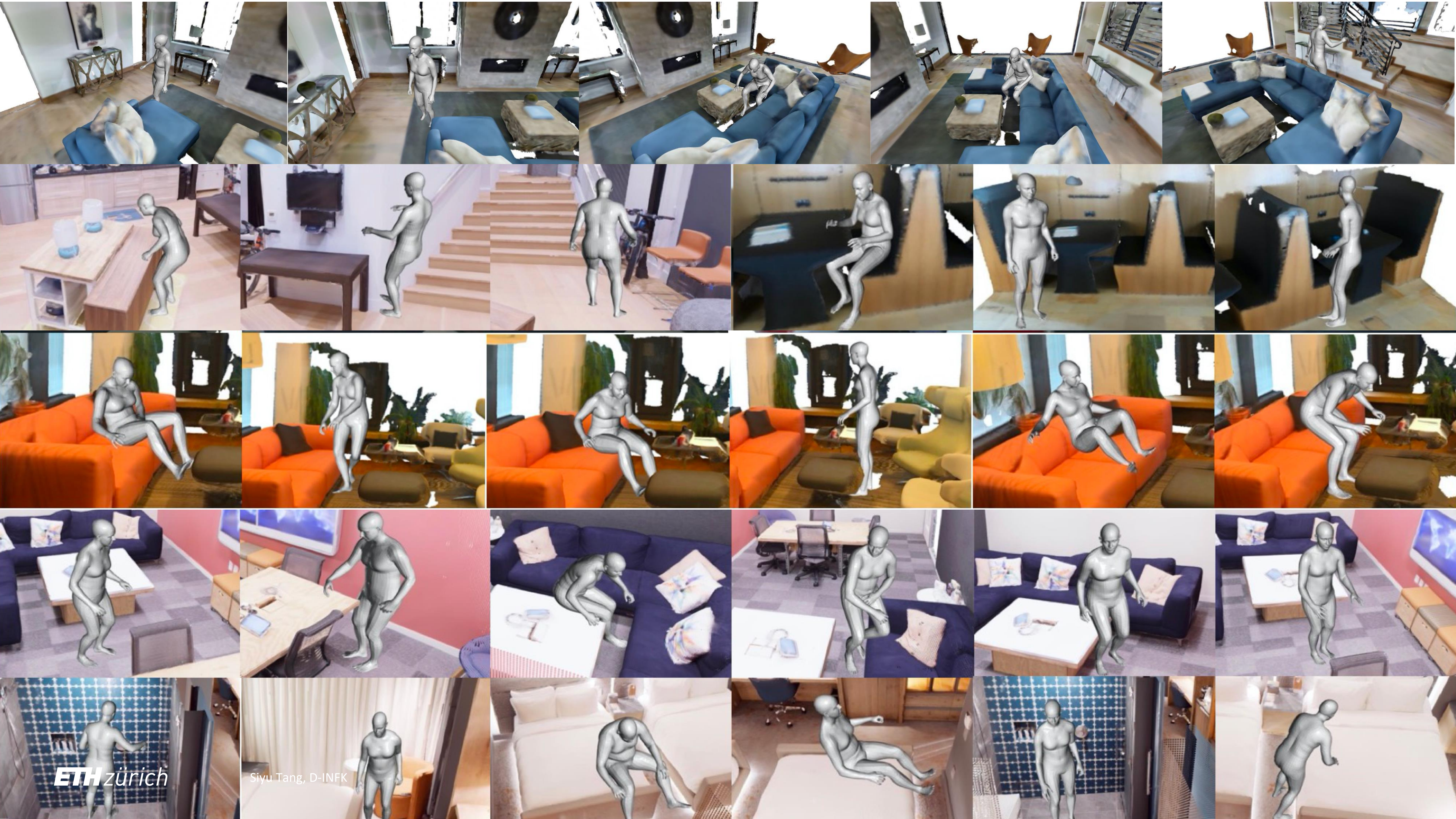
[1] Straub et al. The Replica dataset: A digital replica of indoor spaces. *arXiv 2019*

[2] Chang, Dai, Funkhouser, Halber, Nießner, Savva, Song, Zeng, Zhang: Matterport3D: Learning from RGB-D Data in Indoor Environments. *3DV 2017*

Populating the Digital World with People



Zhang, Hassan, Neumann, Black, **Tang**: Generating 3D People in Scenes without People. **CVPR 2020 (oral)**



Next?

- Dressing People in 3D
- Human motion generation
- Person-person social interaction capture and synthesis
- Controllable neural avatars



<https://vlg.inf.ethz.ch>

