NII International Internship program
Segmented Fusion

Warping
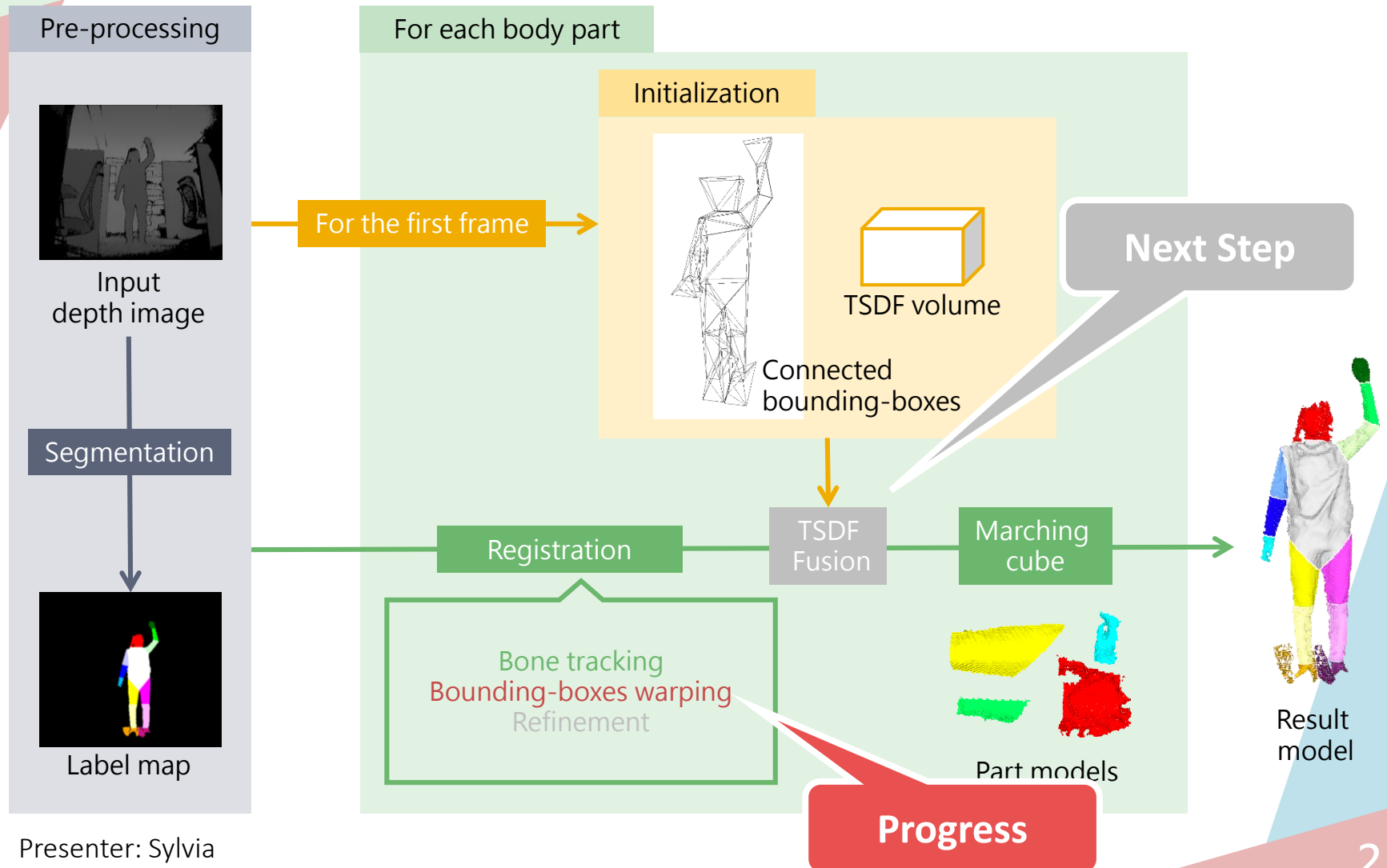
20171228

Sylvia

Advisors: Prof. A.Sugimoto

Ass.Prof. D.Thomas

Summary

Pre-processing

For each body part

Initialization

For the first frame

TSDF volume

Connected bounding-boxes

Next Step

Input depth image

Segmentation

Label map

Registration

TSDF Fusion

Marching cube

Bone tracking
Bounding-boxes warping
Refinement
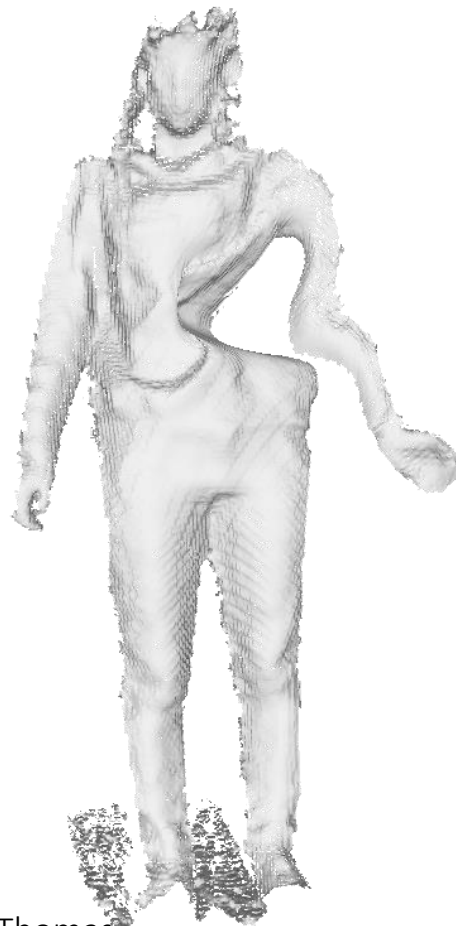
Part models

Result model

Progress

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Advisors: Prof. A.Sugimoto, Ass.Prof. D.Thomas

Summary

♣ Previously

   ♣ Fuse meshes by interpolated transform warping

   ♣ Refine the transform of corners

♣ Progress

   ♣ Warp meshes by two way, Quaternion blending and extrapolation

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Quaternion warping

♣ I tried to use Quaternion warping again and implemented by myself. However, the results are still wrong.

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Extrapolation warping

♣ I use trilinear extrapolation in irregular bounding-boxes to get new positions of vertices.

Resources: 031_warping.avi
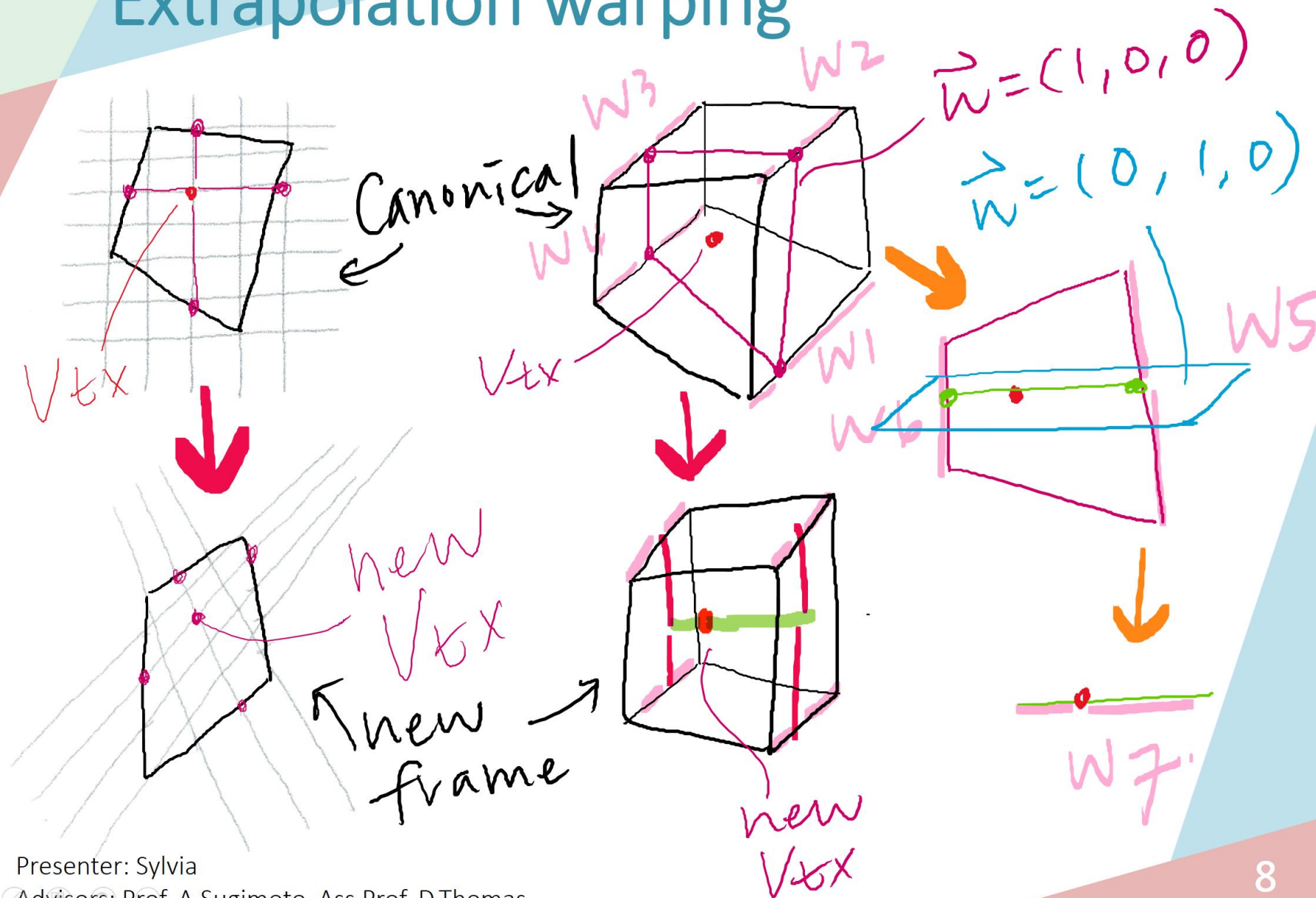
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Extrapolation warping

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Next step

- ♣ Implement warping in TSDF
- ♣ Refine the bounding-boxes

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