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MARKERLESS IO-TRACKING FOR 3D US COMPOUNDING



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Use Case: Prostate Fusion Biopsy

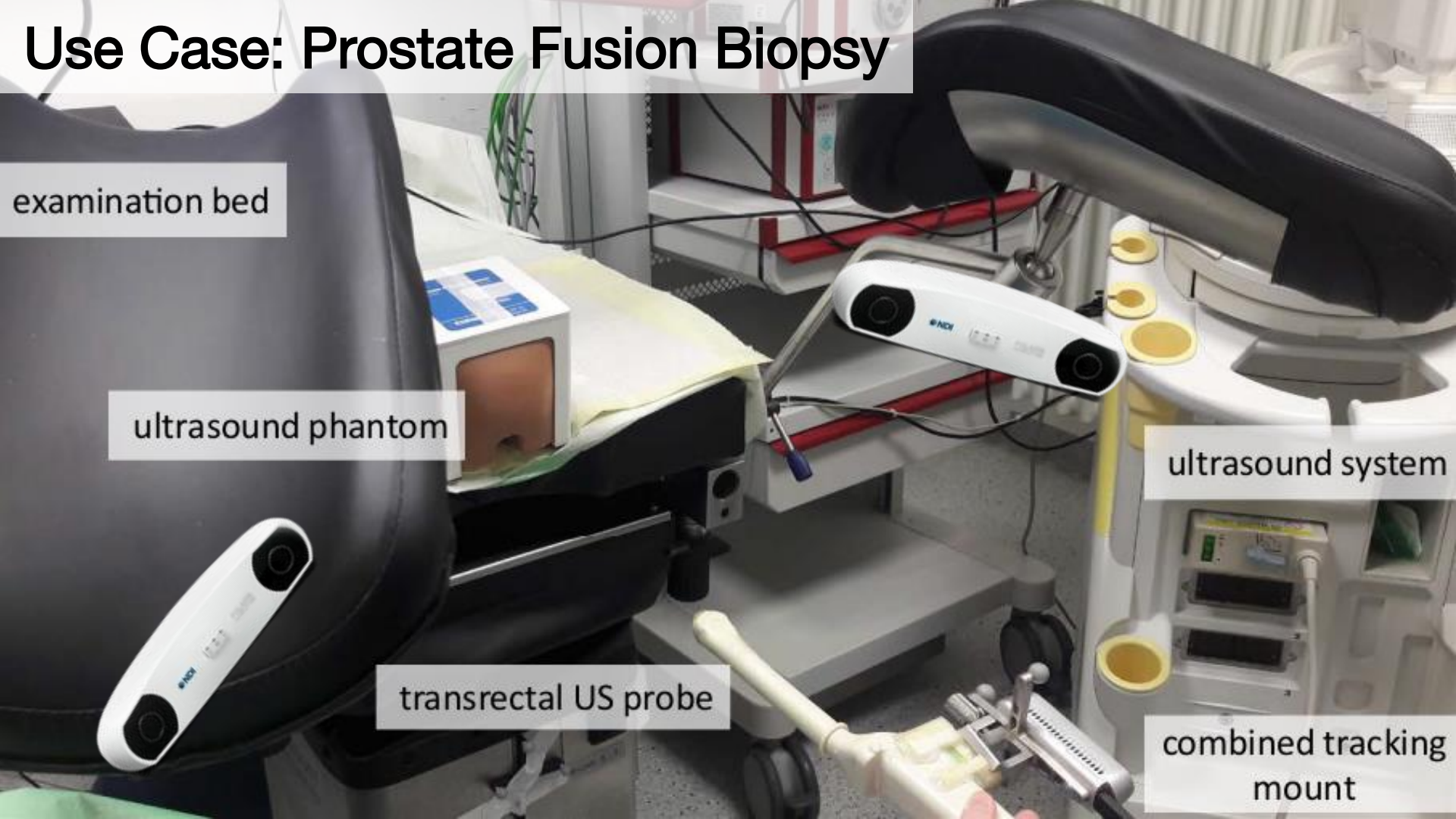
examination bed

ultrasound phantom

transrectal US probe

ultrasound system

combined tracking
mount



Use Case: Prostate Fusion Biopsy

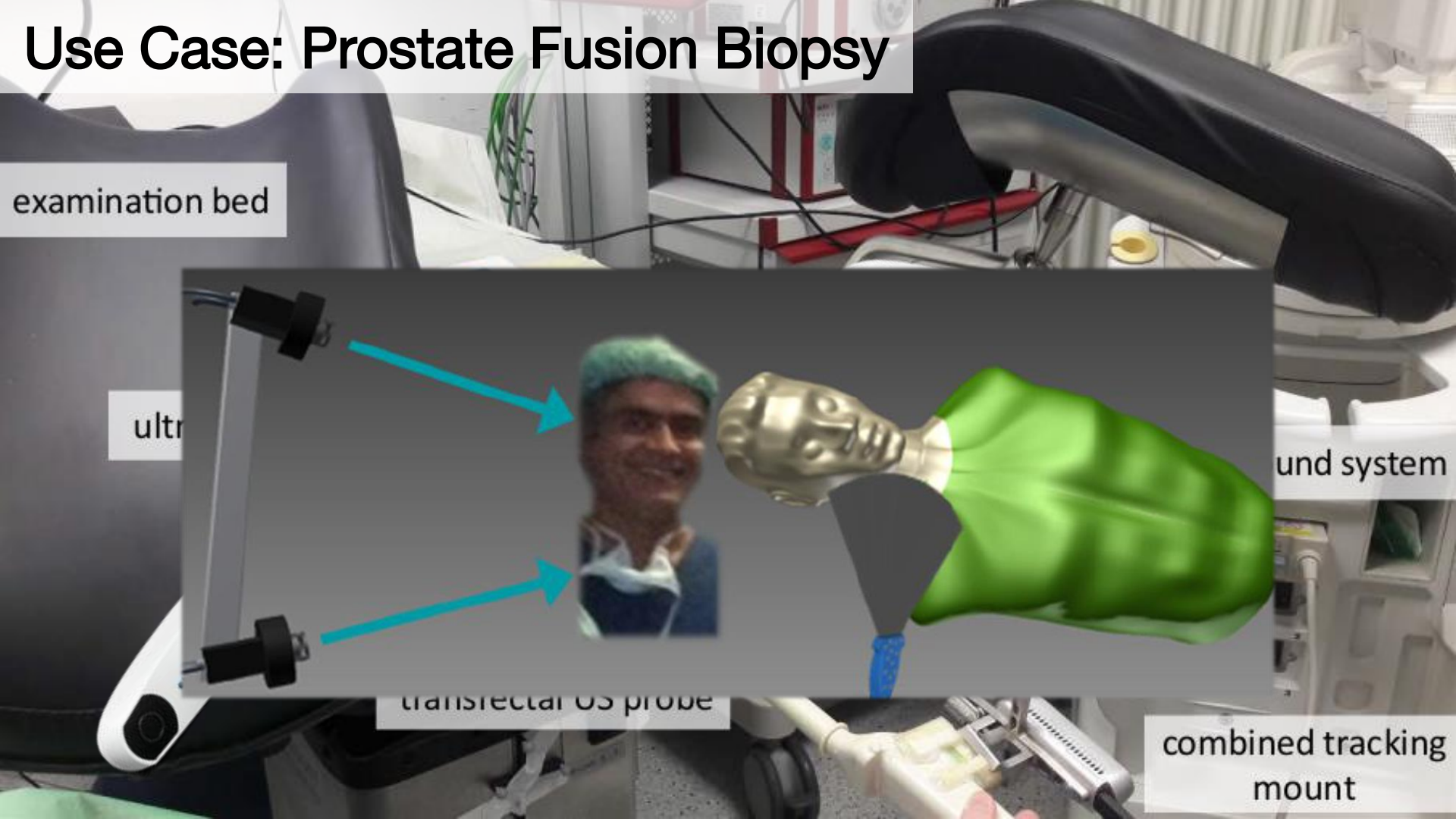
examination bed

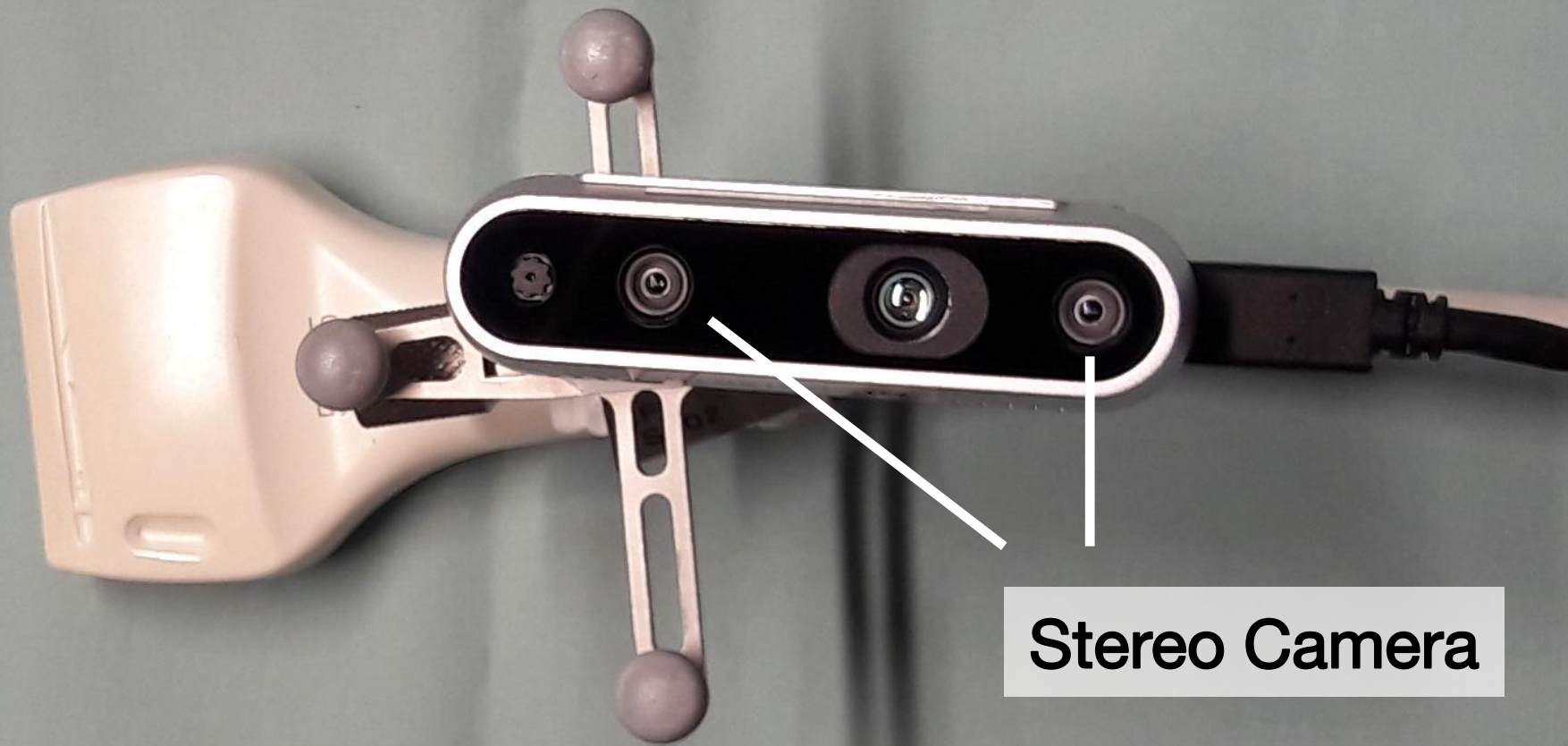
ultra

und system

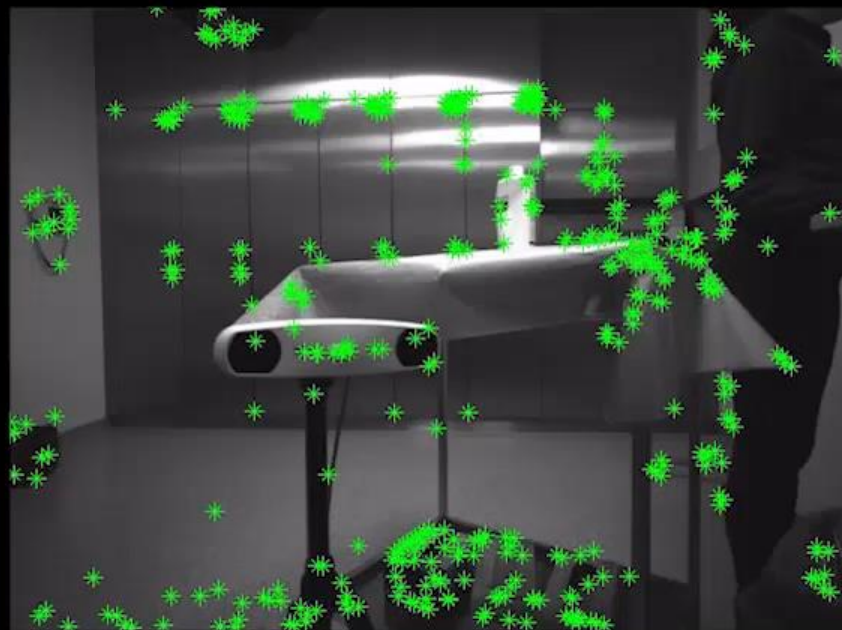
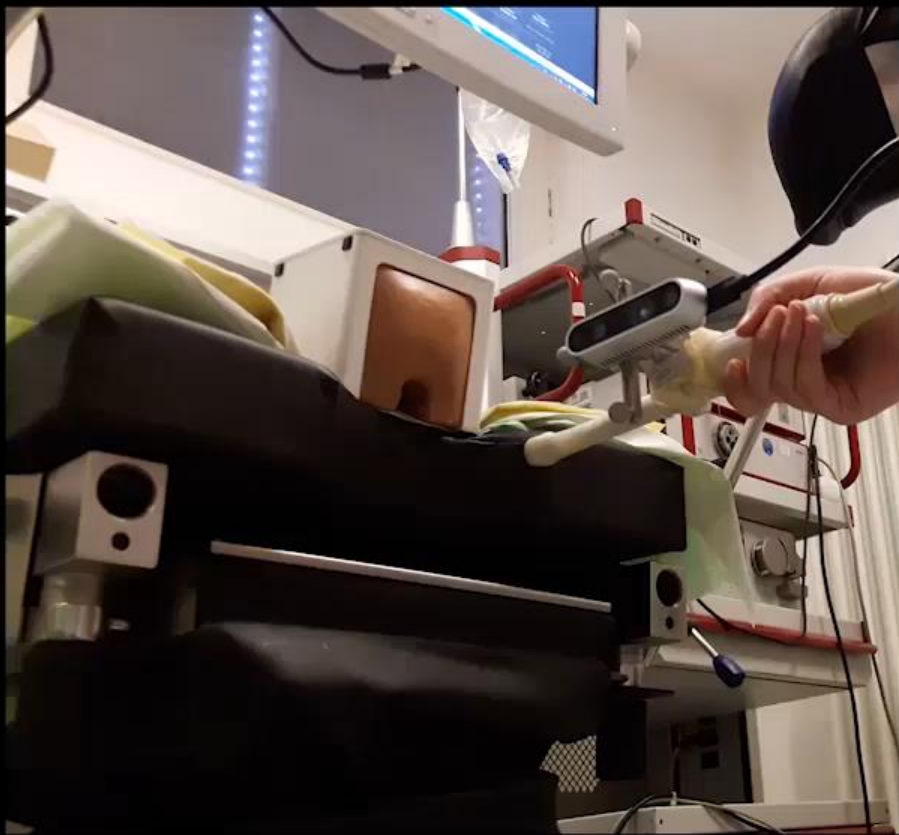
transrectal US probe

combined tracking
mount

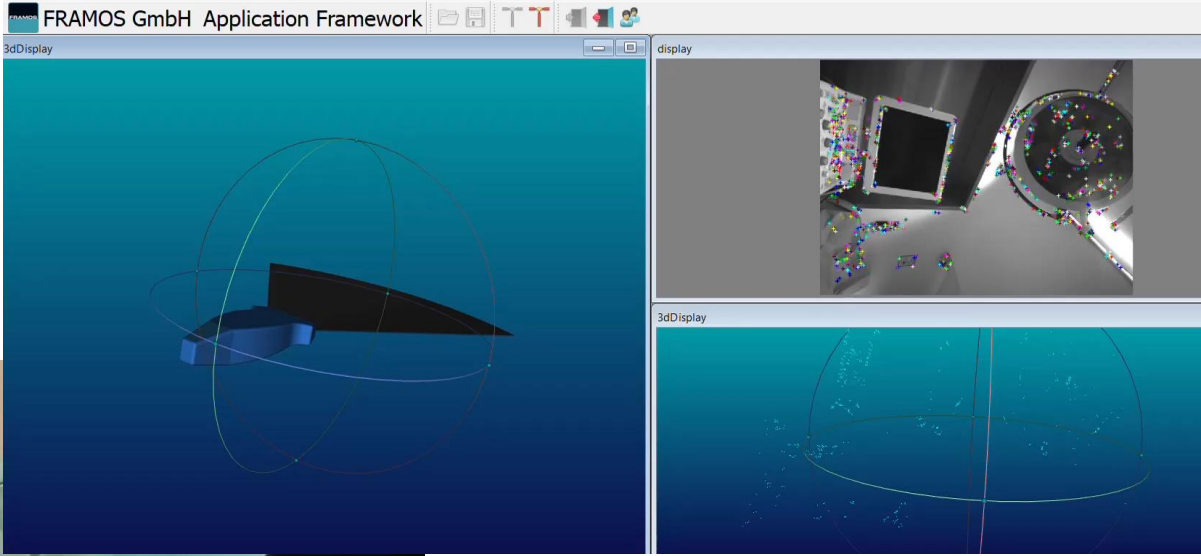


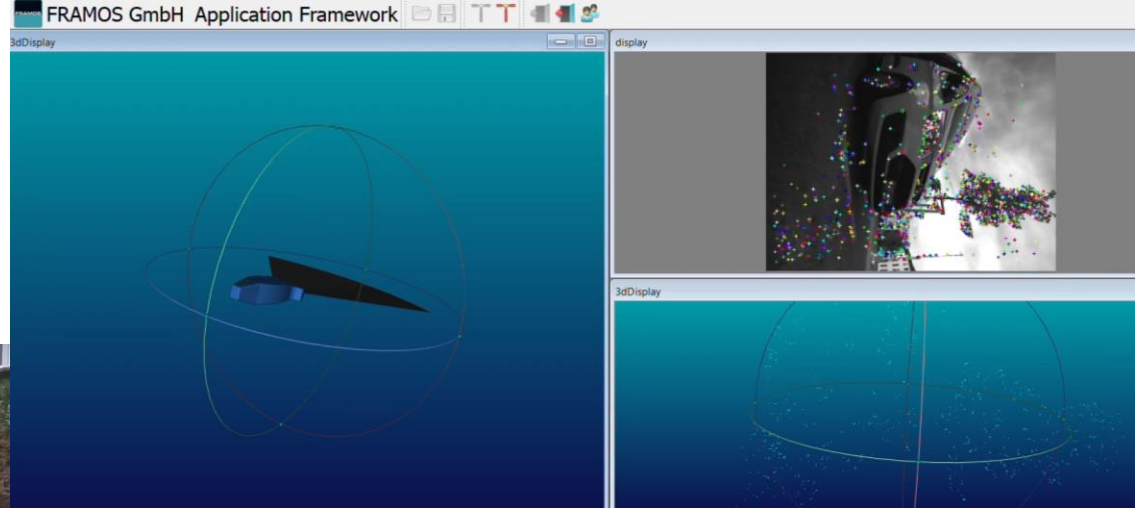


Stereo Camera



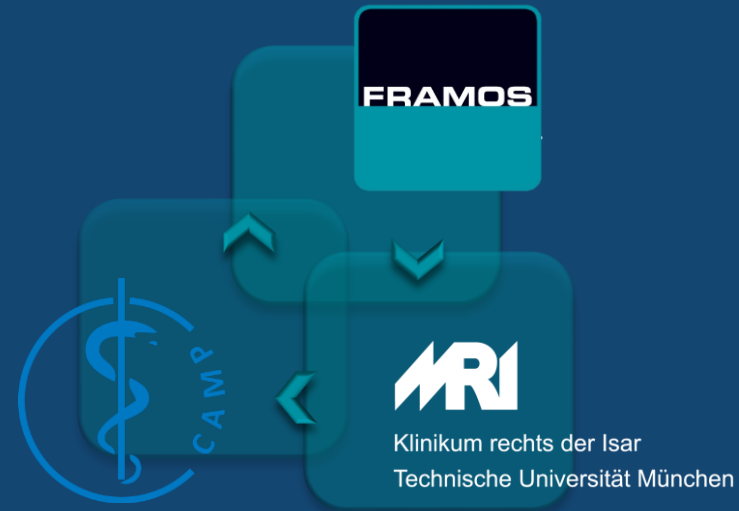
3D TRUS volumes acquisition - NDI + SLAM



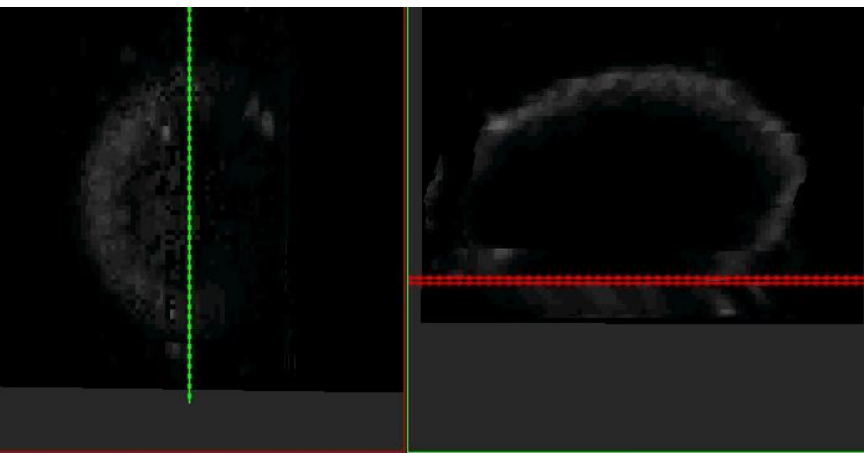


Live Demo . . .

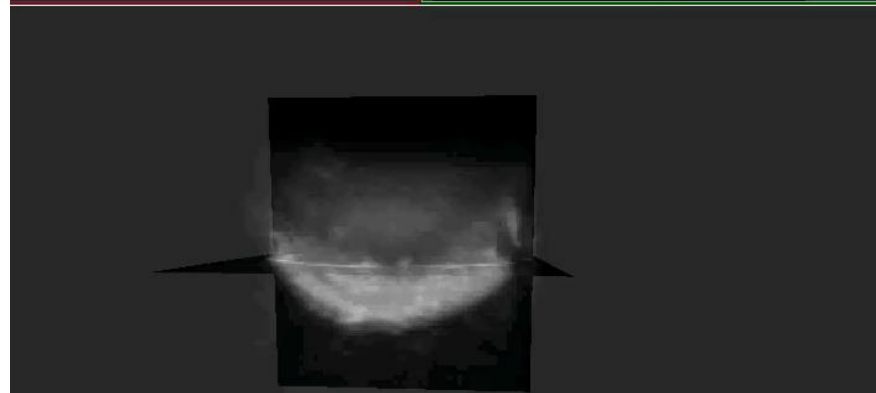
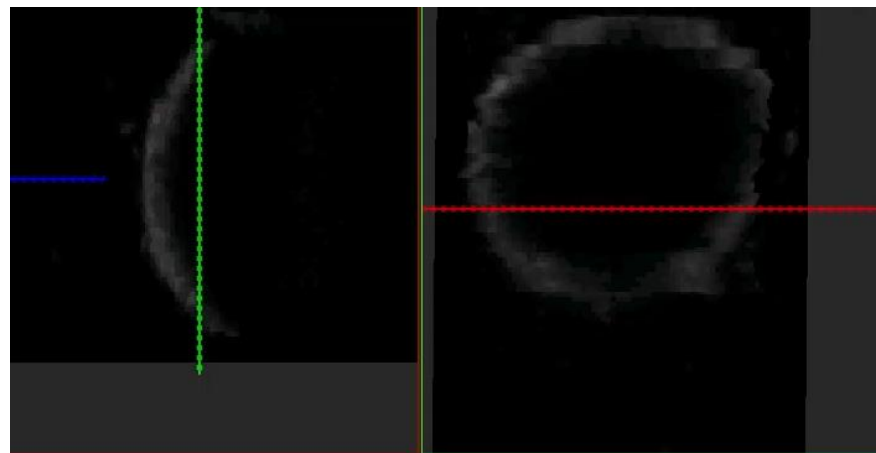
Markerless 3D Pose Tracking on US Transducer



3D US OF SPHERE PHANTOM



OTS



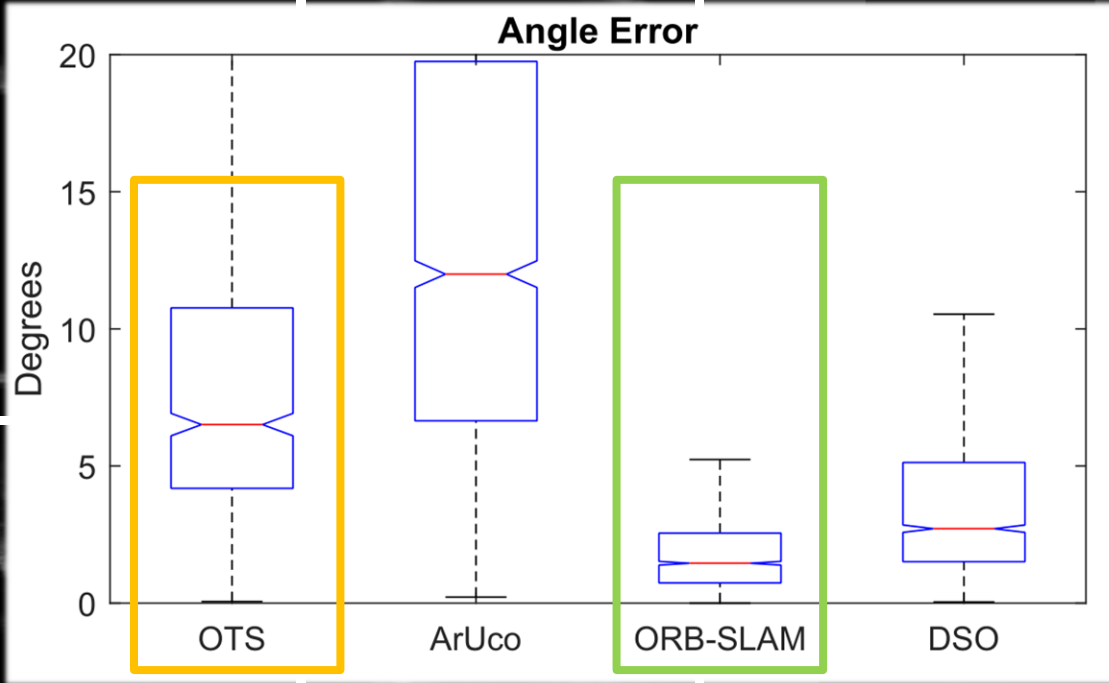
SLAM

I.a.

I.b.

I.c.

I.d.



- | | |
|---------|-----------------------|
| I. SLAM | a. Transversal Slice |
| | b. Longitudinal Slice |
| II. OTS | c. Spatial Rendering |
| | d. 3D Compounding |

II.a.

II.b.

II.c.

II.d.



THANK YOU!

¡Muchas gracias!

