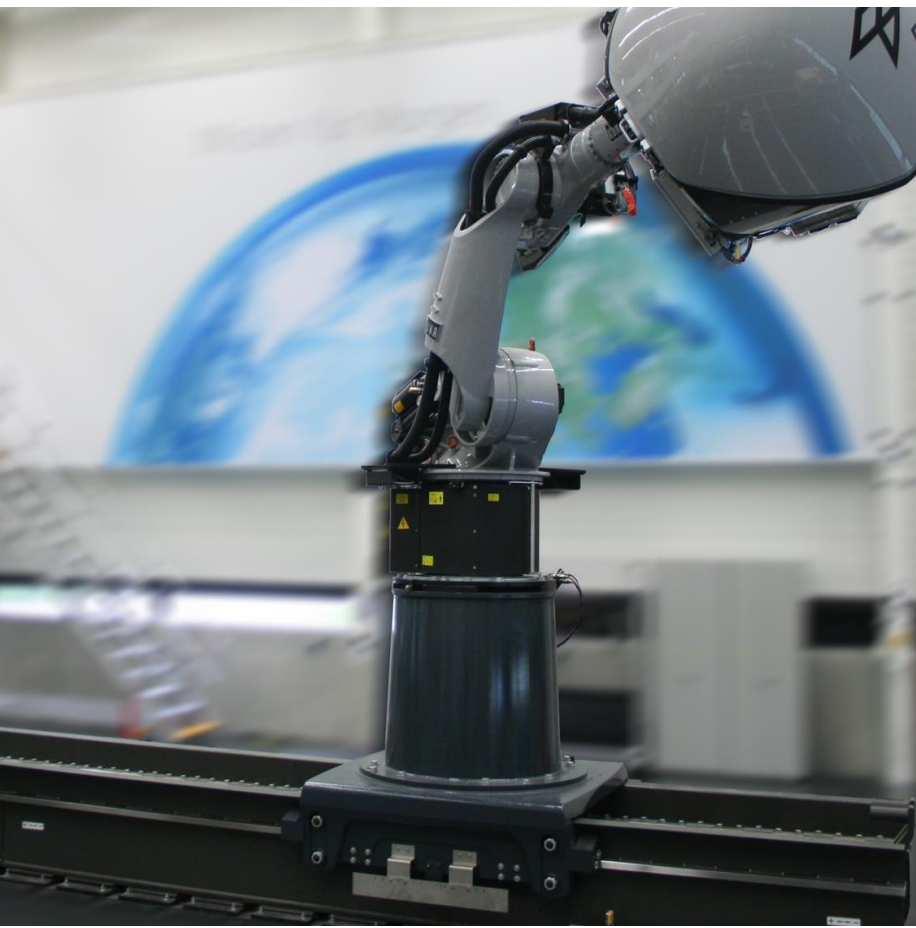


The DLR Dynamic Motion Simulation Center (DMSC)

Motion Platforms



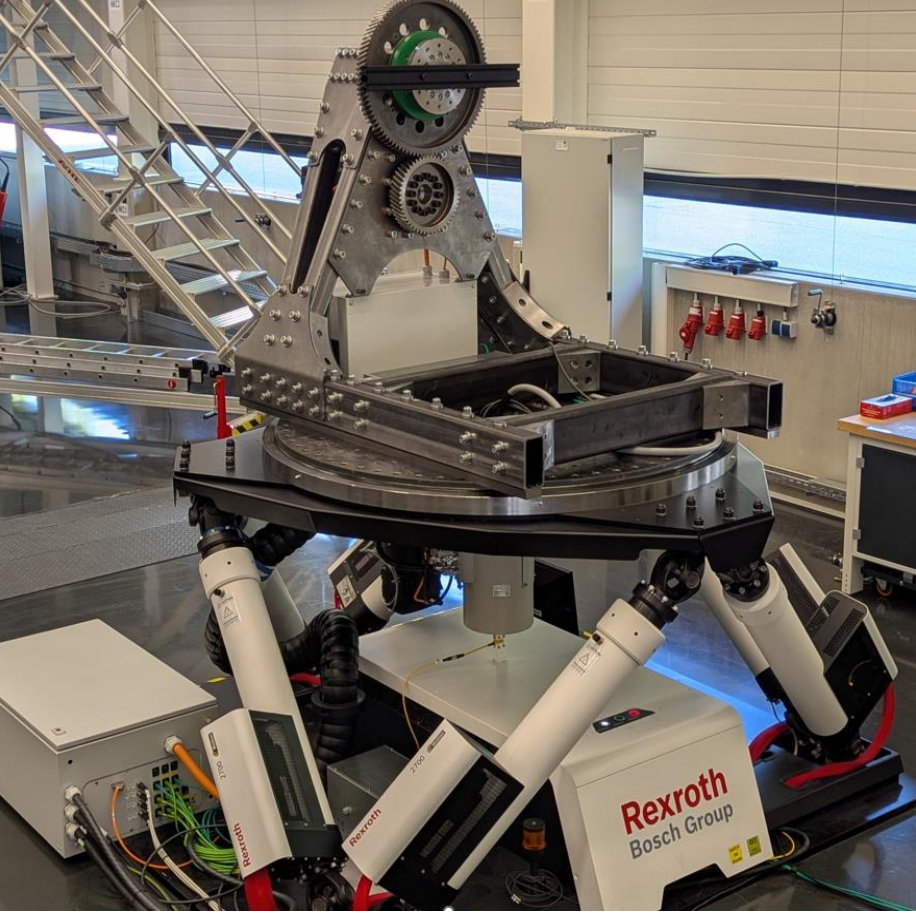
Robotic Motion Simulator

- 500 kg
- Endless roll / yaw
- 10 m linear axis
- Largest workspace



Personal Air Vehicle Simulator

- 600 kg
- 6 axes
- Ground-level entry



Dynamic Simulator

- 6 axes (+2 rotational axes)
- 2400 kg (600 kg)
- Endless roll / yaw
- High (angular) acceleration

Cockpits



Generic One-Seater Cockpit

- Human Factors Interfaces
- Highly customizable
- Stereo Projectors + XR



Generic Two-Seater Cockpit

- Small Aircraft / VTOLS
- Three axis stick (4000 Hz)
- Highly customizable
- Mixed Reality glasses



Specific DA42 Cockpit

- Complete Avionics (G1000)
- Wittenstein Control Loading
- Mixed Reality glasses

Research



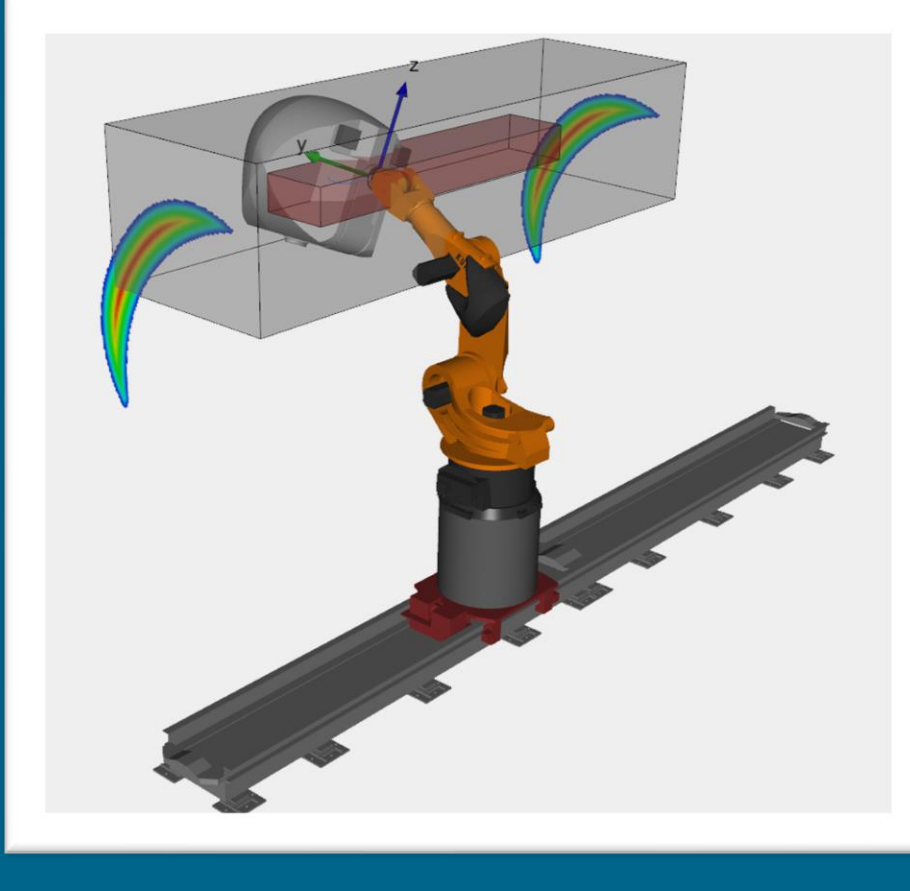
Human Factors
Human Dynamics



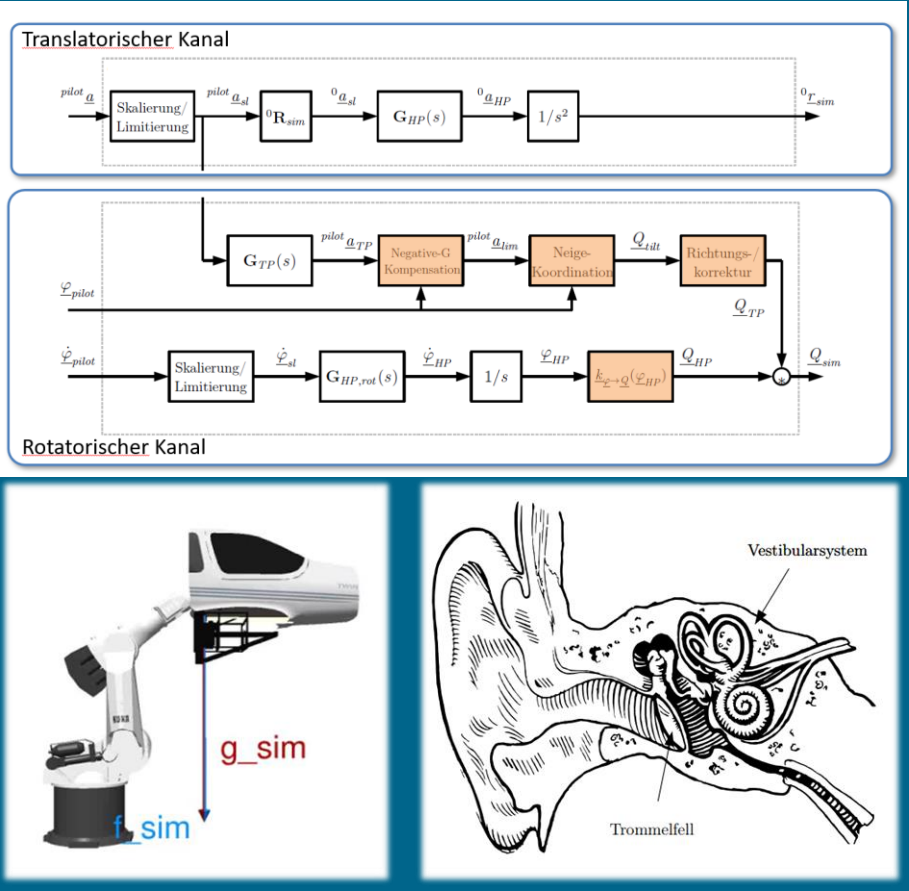
Live Virtual Constructive



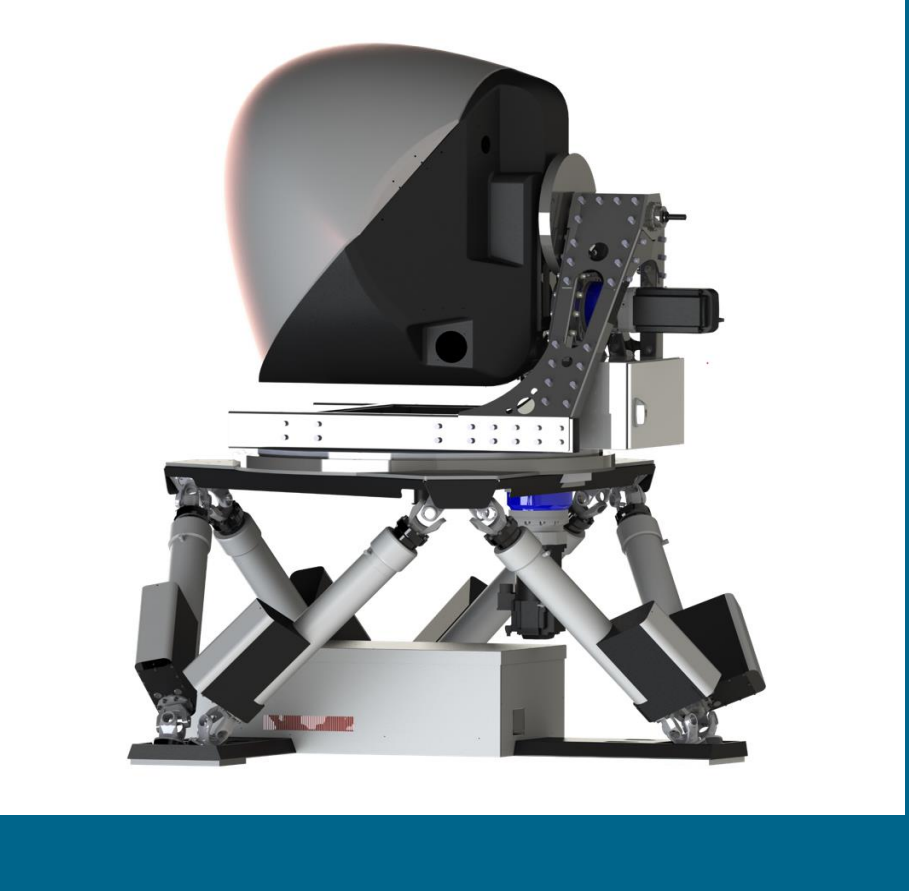
Swarm Simulation
Simulation Methods



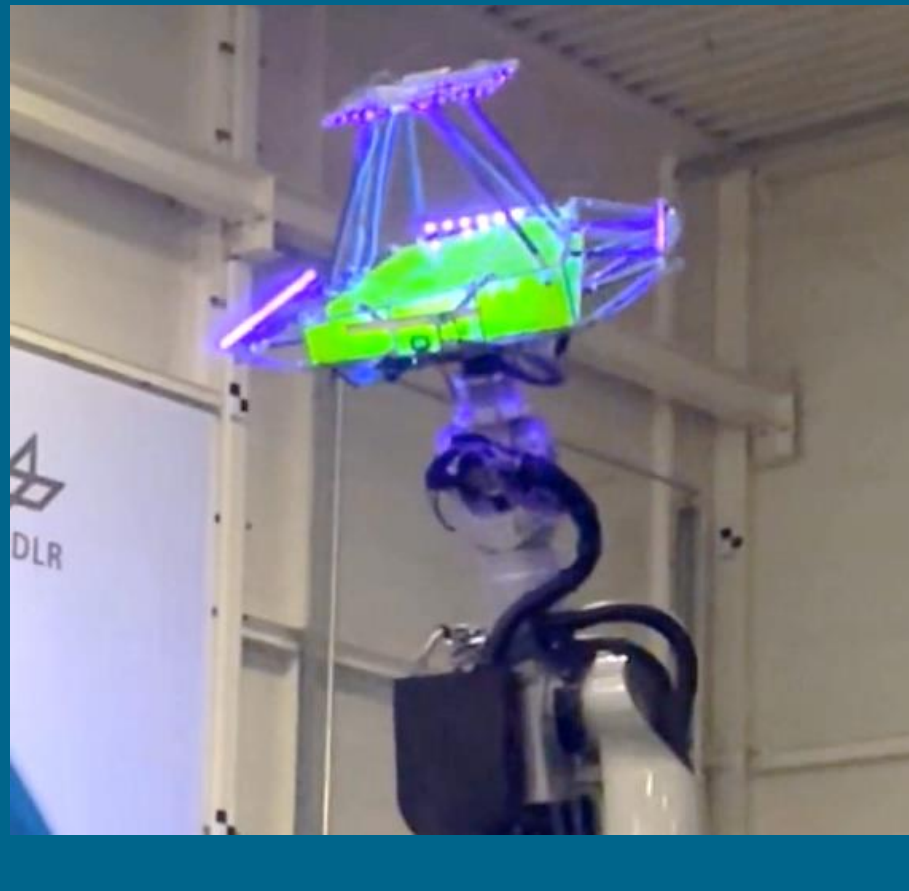
(Realtime) pathplanning
Overactuated systems



Motion Cueing
Algorithms



Simulator Design

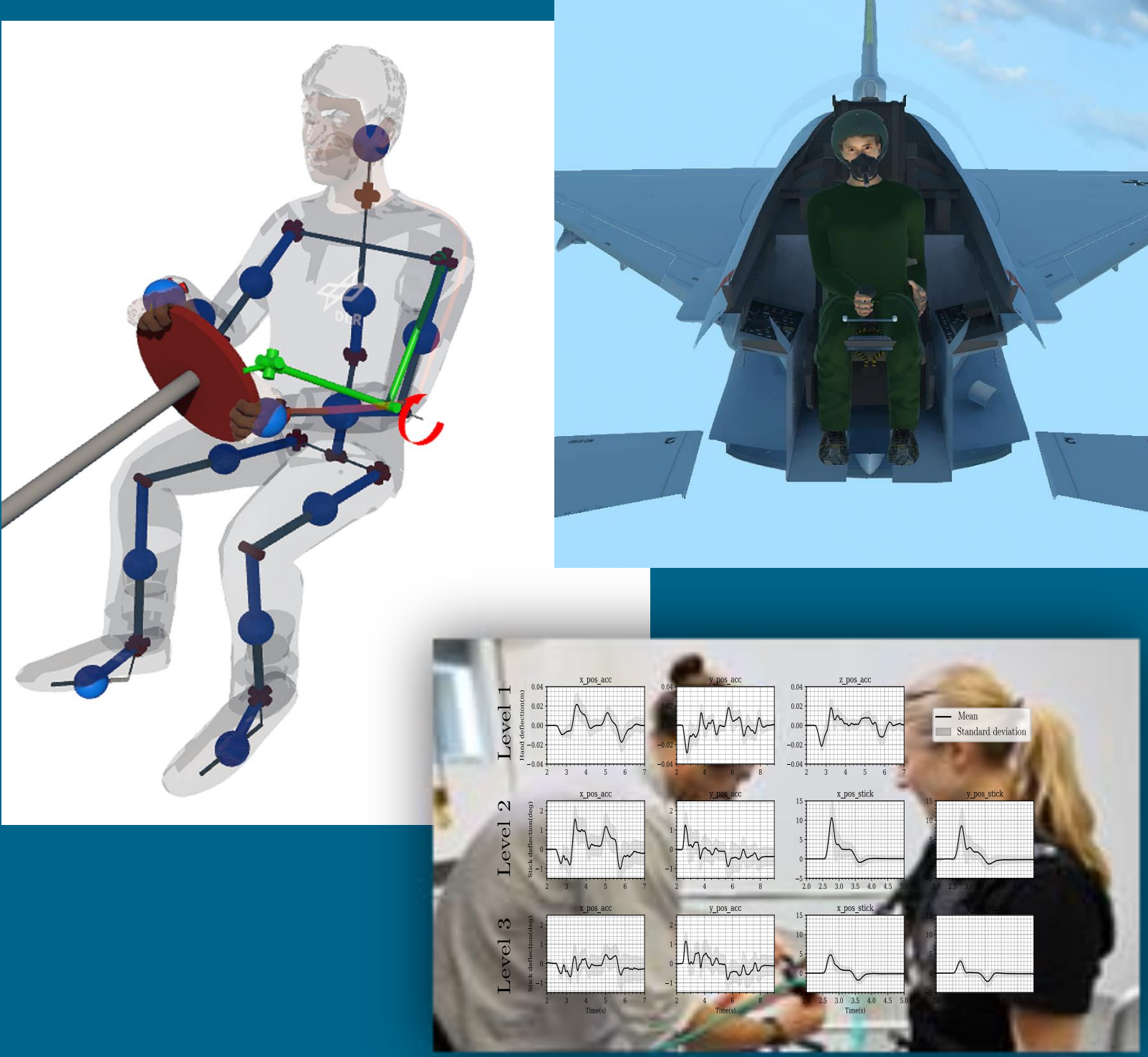


Sloshing Experiments



Realtime Visualization
for simulations

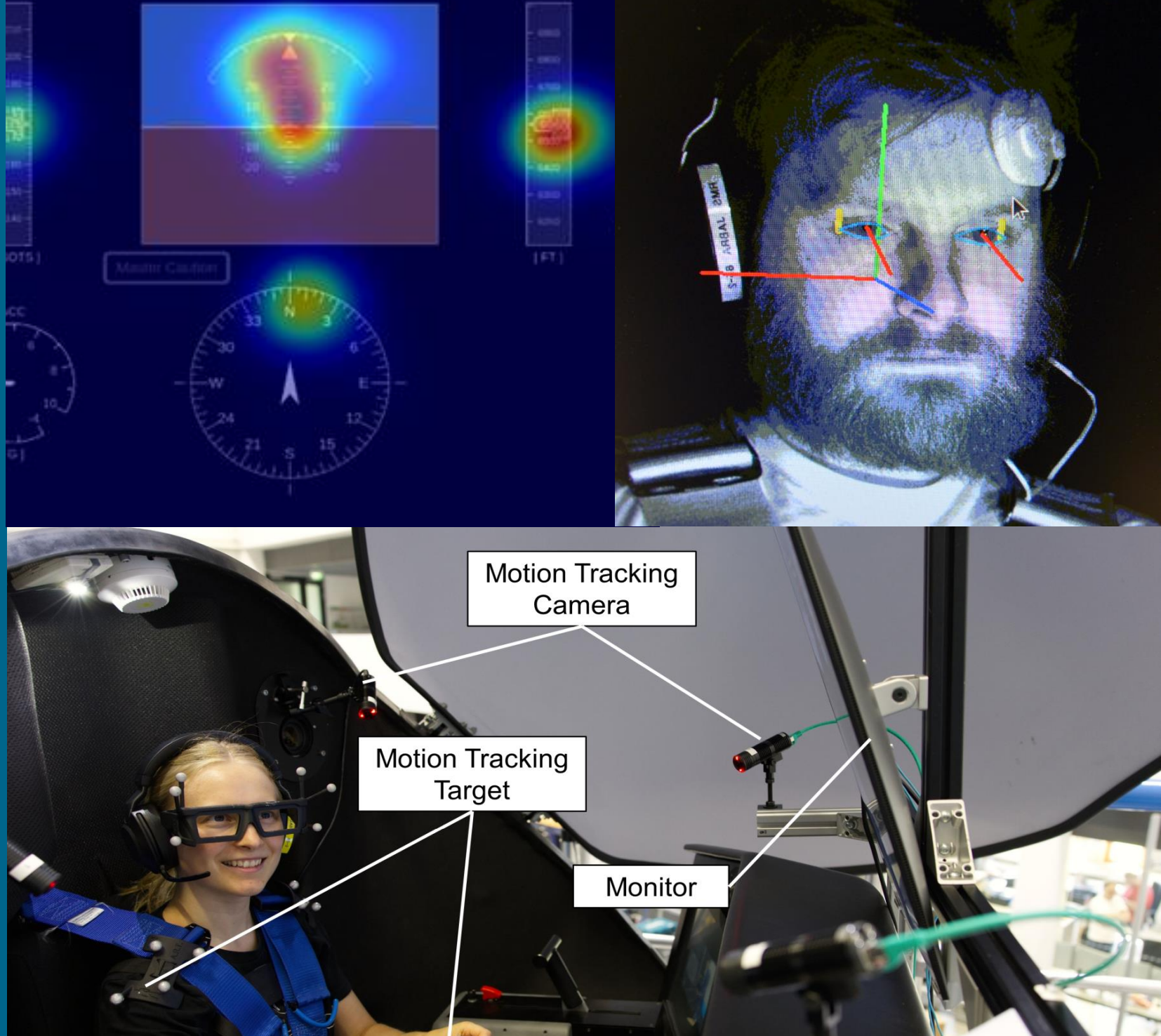
Application



Modelling of human dynamics
+ motor cortex



Flight test preparation



Motion Simulator campaigns

The Dynamic Motion Simulation Center is a world-wide unique facility for high dynamic motion simulation, engineering testbeds and human factors experiments.

Contact: Andreas.Seefried@dlr.de

