

CMSC 498W

Lecture 22

2016-04-26

Case Study:
VR for Sports Training

Derek Juba
Amitabh Varshney

Tele-immersive environments for rehabilitation activities: an empirical study on proprioception

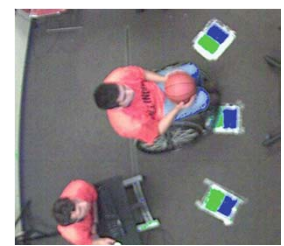
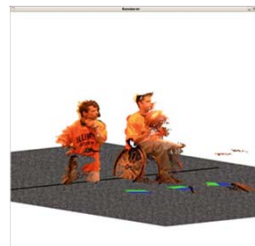
Kenton McHenry · Peter Bajcsy · Mike Frogley ·
Rob Kooper

Multidim Syst Sign Process (2013) 24:317–330

Rehabilitation

- Paraplegics lose
 - Touch
 - Pain
 - Kinesthetic sense (Proprioception)
- Prone to collisions, injuries
- Replace lost proprioception with training

Rehabilitation



McHenry et al.

Training

- Low risk of injury, low wear
- Explore what-ifs
- Perform repetitions
- Replays / Analysis

Training

Sports Training and Virtual Reality: Challenges in Making the Physical, Virtual

<http://on-demand.gputechconf.com/gtc/2016/video/S6752.html>

Light-field VR

Computational Displays for Virtual and Augmented Reality

<http://on-demand.gputechconf.com/gtc/2016/video/S6738.html>