



H L R I S

COVISE-Workshop 2008

# Collaborative VR



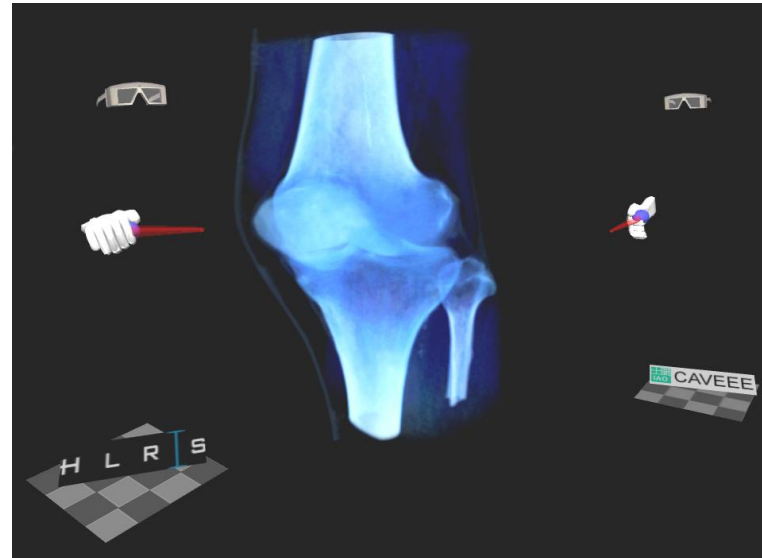
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H L R I S 

# Collaborative VR

- Collaborative VR:
  - Joint Research
  - Expert consultation
  - Teaching
  - Reviews
  - Presentations



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# Collaboration modes

- Loose
  - Viewpoints are not synchronized
  - Avatars show the position of partners
  - Suited for joint work
- Tight
  - Viewpoints are synchronized
  - Avatars are not displayed by default
  - All Partners are allowed to interact with the VR World
  - Suited for joint work on small objects and presentations
- Master/ Slave
  - Viewpoints are synchronized
  - Only the master is allowed to interact with the VR world
  - Suited for Presentations

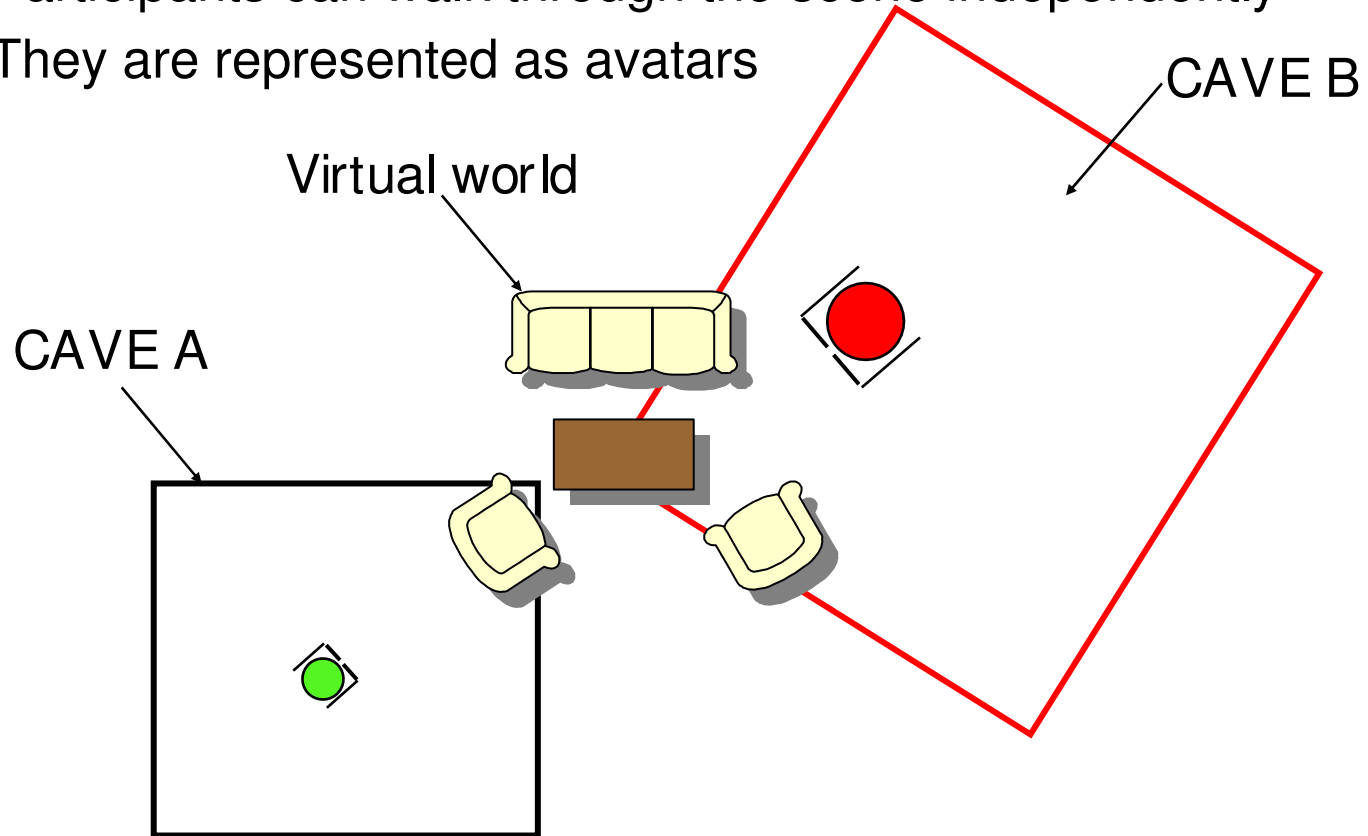
## Cooperative Options

- Loose
- Tight
- Master/Slave
- Show avatar
- 0.0
-  Sync Interval
- Master



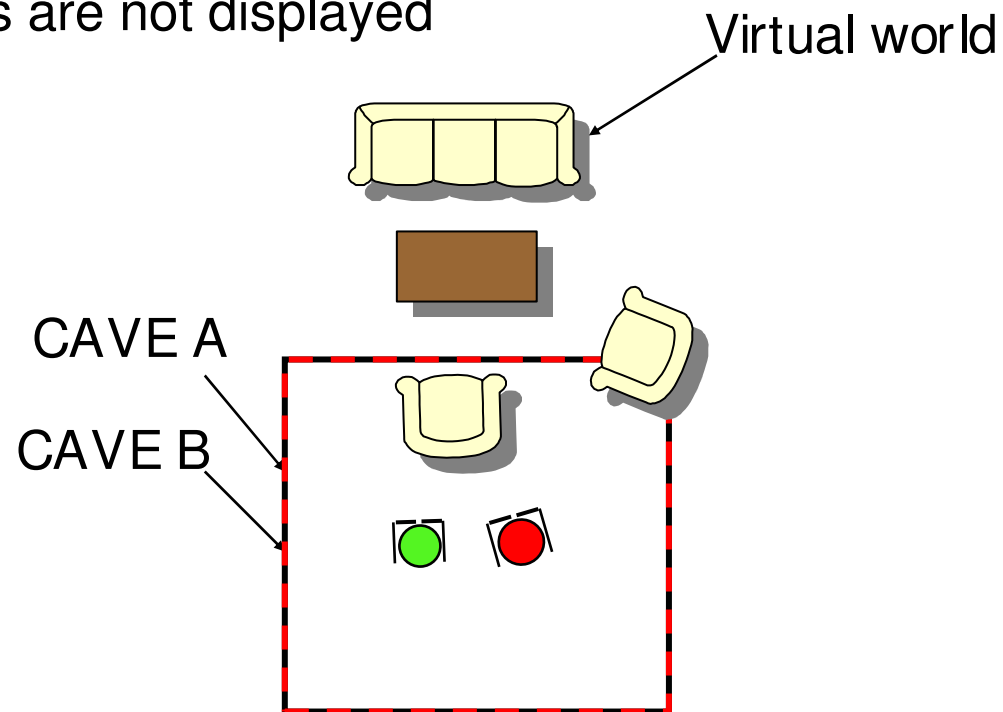
# Loose Coupling

- Participants can walk through the scene independently
- They are represented as avatars



## Tight and Master/Slave Coupling

- Position and orientation of the Projection environment relative to the scene is synchronized
- Local head tracking is performed
- Avatars are not displayed



# The Avatar

## Advantages:

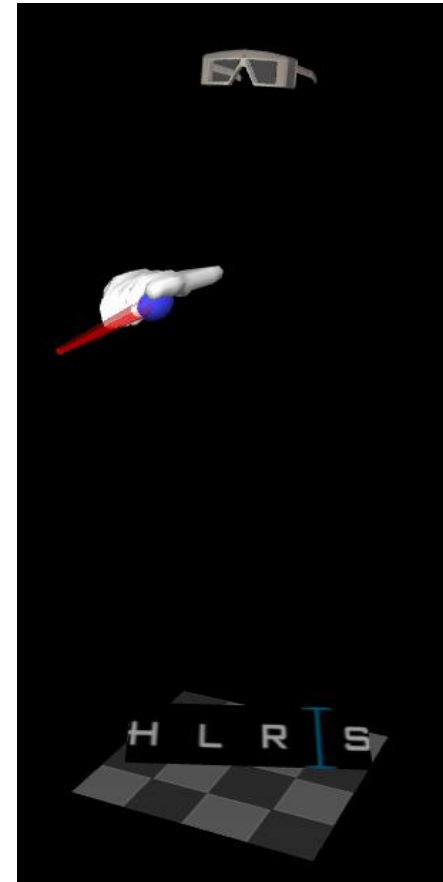
- Can transmit many gestures
- Shows the exact position of the viewer
- The size of the person is visible, even when floating in space
- Does not hide objects

## Disadvantage:

- Poor visibility, especially in architectural models

## Future work:

- Animated person with inverse kinematics



## Marker

- Any number of Markers can be placed in the scene
- Markers can be moved by all participants

