## **Annual CS Postgrad Workshop - Presentation**

Title: Comparison of Two Novel Environmental Manipulation Methods For Rotating VR Users

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## Abstract:

Redirected walking lets users walk around a small tracking space to move inside a larger virtual world. Segment Addition is a new technique for manipulating the virtual environment to redirect the user inside the tracking space. Segment Addition adds slices to the virtual environment as the user turns in the tracking space, changing the real rotation a user has to complete to reach their goal in the virtual world. Our user study compares Segment Addition to a simpler technique called Moving Goalposts. Moving Goalposts moves the goals inside the environment while keeping the rest of the environment static. It was developed to provide a straightforward means of evaluating Segment Addition.

An analysis of the experimental results indicates that users do not notice changes associated with the addition or subtraction of a small number of extra slices. Users' naturalness, comfort and usability scores remained high even after they noticed the change in rotation amount.