

# MIND, TECHNOLOGY, AND SOCIETY

## Seminar Series

UC MERCED, Fall 2016

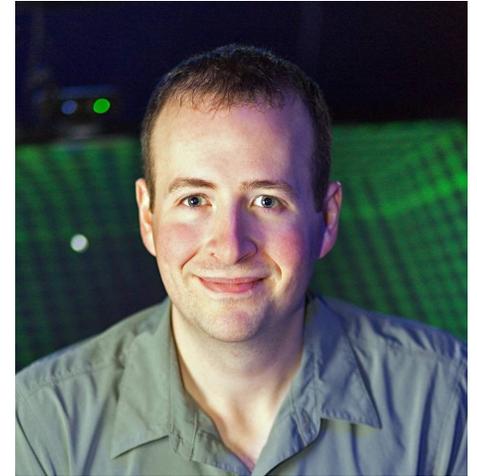
*Evan Suma Rosenberg*

University of Southern California

### Making Small Spaces Feel Large: Practical Illusions in Virtual Reality

Virtual reality has incredible potential for the creation of powerful and compelling experiences, but only when the user's body is fully engaged does the virtual begin to feel real. However, body movement through the virtual world is one of the most significant practical challenges for VR, because the user is restricted by the boundaries of the physical space. In this talk, I will introduce a number of perceptual illusions that can overcome the spatial limitations imposed by the real world. This approach, known as redirected walking, has stunning potential to fool the senses. I will discuss a series of perceptual experiments that have convinced users they were walking along a straight path while actually traveling in a circle, or that the virtual environment was much larger than would be possible in the real world. Additionally, I will present the Redirected Walking Toolkit, an open-source virtual reality research and development platform that can automatically redirect users in physical space as they walk through potentially infinite virtual worlds.

*Evan Suma Rosenberg is the Associate Director of the MxR Lab at the Institute for Creative Technologies and a Research Assistant Professor in the Department of Computer Science at the University of Southern California. His research focuses on techniques and technologies that can enhance virtual reality and human-computer interfaces, with particular interests in human locomotion, perception, and cognition. Dr. Suma Rosenberg has co-authored over 70 academic publications, eight of which have been recognized with conference awards, and is a six-time SIGGRAPH presenter. His research has been funded by the National Science Foundation, the U.S. Army Research Office, the Office of Naval Research, and the Defense Advanced Research Projects Agency (DARPA). Additionally, Dr. Suma Rosenberg has directed the development of several publicly available free software projects that have been widely used by the research and hobbyist communities, and his online research videos have been viewed over 2.4 million times. He received his Ph.D. in 2010 from the Department of Computer Science at the University of North Carolina at Charlotte.*



**MONDAY,**

**SEPTEMBER 19, 2016**

**3:00 PM - 4:30 PM**

**KL 232**

Please contact Jeff Yoshimi ([jjoshimi@ucmerced.edu](mailto:jjoshimi@ucmerced.edu)) for more information.