

"VR Without Attachments"

One of the continual criticisms of VR is that one has to put on gear. In the case of headmounted displays one has to put on a helmet or visor, and in the case of projection-based displays one has to put on stereo glasses and usually a head tracking device. Advancements in camera based tracking and auto-stereo makes it possible to walk up to a display and have a VR experience "in your face" without wearing apparatus, or putting on glasses. This presentation will review camera tracking and auto stereo methods in general and describe in detail the methods used to create the VarrierTM auto stereo VR system developed at EVL. Auto-Stereo in the VarrierTM system is implemented using 35 LCD panels with barrier strips. Camera tracking is based on neural net face recognition algorithms.