

**Abstract:**

The study of natural image statistics has yielded substantial advances in our understanding of the early stages of biological visual processing. Less is known about how these principles apply to 3D vision because of the technical challenges involved in measuring the relevant statistics. I will describe measurements of 3D statistics captured with a custom-built eye and scene tracking system. I will compare these measurements to perceptual and neurophysiological properties of 3D vision and consider the implications for how 3D information is extracted and interpreted by the visual system.