Kersten Computational Vision Lab

> The Computational Vision Lab combines computational theory with behavioral and brain image experiments to understand how we see the world around us. Read more about our research and publications.

Recent Publications

Vizioli, L., De Martino, F., Petro, L. S., Kersten, D., Ugurbil, K., Yacoub, E., & Muckli, L. (2019). Multivoxel pattern of blood oxygen level dependent activity can be sensitive to stimulus specific fine scale responses. *bioRxiv*. https://doi.org/10.1101/798306

Peterson, L. M., Kersten, D. J., & Mannion, D. J. (2018). Surface curvature from kinetic depth can affect lightness. *Journal of Experimental Psychology: Human Perception and Performance*, *44*(12), 1856. https://doi.org/10.1037/xhp0000575

Morgenstern, Y., & Kersten, D. J. (2017). The perceptual dimensions of natural dynamic flow. *Journal of Vision*, *17*(12), 7–7. https://doi.org/10.1167/17.12.7

High-impact publications

Kersten, D., Mamassian, P., & Yuille, A. (2004). Object perception as bayesian inference. *Annu. Rev. Psychol.*, *55*, 271–304. https://doi.org/10.1146/annurev.psych.55.090902.142005

Yuille, A., & Kersten, D. (2006). Vision as bayesian inference: Analysis by synthesis? *Trends in Cognitive Sciences*, *10*(7), 301–308. https://doi.org/10.1016/j.tics.2006.05.002

Murray, S. O., Kersten, D., Olshausen, B. A., Schrater, P., & Woods, D. L. (2002). Shape perception reduces activity in human primary visual cortex.

Proceedings of the National Academy of Sciences, *99*(23), 15164–15169. https://doi.org/10.1073/pnas.192579399

Murray, S. O., Boyaci, H., & Kersten, D. (2006a). The representation of perceived angular size in human primary visual cortex. *Nature Neuroscience*, *9*(3), 429–434. https://doi.org/10.1038/nn1641