Welcome to Ehud Zohary’s Lab. Our research is focused on how our brain generates a representation of the world around us, combining incoming perceptual information with memory-based expectations (of what it should be), to act on it. Consider the demo you’ve just seen, showing a visual scene, typical scanning patterns, and the image generated on your retina. The visual image is heavily blurred in the periphery. We therefore constantly scan the visual scene with our eyes, thereby generating a novel retinal image with every new eye movement. Incredibly, our brain seamlessly generates a stable representation of the visual scene in spite of this jerky and incomplete visual information. This perceptual stability is so robust that we live in an illusion that we see everything at the highest precision all at once. In our laboratory, we conduct experiments trying to gain further understanding of the phenomenon.

We are also interested in understanding changes in cortical representations. For example: how do the blind construct a world image? What happens to their “visual” cortex? How does our brain generate a body image? how does it change following amputation? Learn more about this and other projects.

We are always looking for bright and motivated students, who have keen interest in Systems Neuroscience. Computational/analytical background is a major advantage. Please email Ehud Zohary if you qualify.

We thank the following agencies and private foundations for their generous support in the past & present: Israel-US Binational foundation (BSF); Israel Science Foundation, The McDonell Foundation, The Dana...
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Our Int'l Ph.D. program provides outstanding students with top-notch courses in computational neuroscience.

The Jerusalem Brain Sciences Building will provide a state-of-the-art research and teaching facility for the Edmond and Lily Safra Center for Brain Sciences.

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