Neural processing of visual motion

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Brief outline of project

In the Motion Vision lab we work on the neuronal mechanisms underlying the detection of motion vision. We use hoverflies as a model species. Despite having compound eyes, the insect brain processes vision in a very similar way to the vertebrate visual cortex. Hoverflies are largely visually guided, like humans. The student would predominantly learn to use intracellular electrophysiology to study single neurons inside the hoverfly brain. By correlating the responses with what the hoverfly is seeing on a high-resolution screen, we can decipher the underlying mechanisms and algorithms. Besides electrophysiology, the student will also learn how to write analysis code in Matlab.

Key references


