



'How do ants perceive and control their direction within panoramic scenes?

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Both honeybees and ants will learn to follow a straight path within natural surroundings directed by information from the surrounding visual panorama. We have explored in laboratory experiments what perceptual mechanisms enable wood ants to maintain their direction of travel relative to a visual scene. It turns out that they perform an unexpected perceptual operation that involves computations over large areas of a scene, either across the whole scene or a segmented region within it. It results in a robust navigational strategy suited to a low-acuity visual system.