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Sommario/riassunto	<p>Animals rely on sensory input from their environment for survival and reproduction. Depending on the importance of a signal for a given species, accuracy of sensory coding might vary from pure detection up to precise coding of intensity, quality and temporal features of the signal. Highly sophisticated sense organs and related central nervous sensory pathways can be of utmost importance for animals in a complex environment and when using advanced communication systems. In sensory systems different anatomical and physiological features have evolved to optimally encode behaviourally relevant signals at the level of sense organs and central processing. The wide range of organizational complexity, in combination with their relatively simple and accessible nervous systems, makes invertebrates excellent models to study general sensory coding principles. The contributions to this e-book illustrate on one hand particular features of specific sensory systems, and on the other hand indicate not only common features of sensory coding across invertebrate phyla, but also similar processing principles of complex stimuli between different sensory modalities. The chapters show that the extraction of behaviourally relevant signals from all environmental stimuli, as well as the detection of low intensity signals and the analysis of temporal features can be similar across sensory modalities, including olfaction, vision, mechanoreception, and heat perception.</p>