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	Descrizione fisica	1 online resource (XXIV, 203 p. 55 illus., 51 illus. in color.)
	Collana	Cognitive Systems Monographs, , 1867-4925 ; ; 30
	Disciplina	629.892637
	Soggetti	Computational intelligence
		Robotics
		Automation
		Artificial intelligence
		Optical data processing
		Pattern perception
		Computational Intelligence
		Robotics and Automation
		Artificial Intelligence
		Image Processing and Computer Vision
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	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references at the end of each chapters.
	Nota di contenuto	Introduction -- Background -- Bottom-up Audio-Visual Attention for Scene Exploration -- Multimodal Attention with Top-Down Guidance -- Conclusion -- Applications -- Dataset Overview.
	Sommario/riassunto	This book presents state-of-the-art computational attention models that have been successfully tested in diverse application areas and can build the foundation for artificial systems to efficiently explore, analyze, and understand natural scenes. It gives a comprehensive overview of the most recent computational attention models for processing visual and acoustic input. It covers the biological background of visual and auditory attention, as well as bottom-up and top-down attentional mechanisms and discusses various applications.

In the first part new approaches for bottom-up visual and acoustic saliency models are presented and applied to the task of audio-visual scene exploration of a robot. In the second part the influence of top-down cues for attention modeling is investigated. .