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Collana	Lecture notes in computer science, , 0302-9743 ; ; 3343. Lecture notes in artificial intelligence
Altri autori (Persone)	FreksaC
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Soggetti	Knowledge representation (Information theory) Space perception
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"This is the fourth volume in a series of books dedicated to basic research in spatial cognition."--Pref. "The international conference Spatial Cognition 2004 held in October 2004 ... 27 contributions were selected for oral presentation and for publication in this proceedings volume ..."--Pref.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Route directions, wayfinding, and spatial behavior -- Descriptions of space : prepositions and reference -- Mental models, diagrams, and maps -- Spatio-temporal representation and reasoning -- Robot mapping and piloting.
Sommario/riassunto	This is the fourth volume in a series of books dedicated to basic research in spatial cognition. Spatial cognition is a field that investigates the connection between the physical spatial world and the mental world. Philosophers and researchers have p- posed various views concerning the relation between the physical and the mental worlds: Plato considered pure concepts of thought as separate from their physical manifestations while Aristotle considered the physical and the mental realms as two aspects of the same substance. Descartes, a dualist, discussed the interaction between body and soul through an interface organ and thus introduced a functional view that presented a challenge for the natural sciences and the humanities. In modern psychology, the relation between the physical and the cognitive

space has been investigated using thorough experiments, and in artificial intelligence we have seen views as diverse as 'problems can be solved on a representation of the world' and 'a representation of the world is not necessary.' Today's spatial cognition work establishes a correspondence between the mental and the physical worlds by studying and exploiting their interaction; it investigates how mental space and spatial "reality" join together in understanding the world and in interacting with it. The physical and representational aspects are equally important in this work. Almost all topics of cognitive science manifest themselves in spatial cognition.
