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Nota di contenuto	Introduction -- Inertial Measurement Unit (IMU)-based human motion perception -- Intuitive human-robot teleoperation based on IMU-based motion perception -- Enhanced human-robot collaboration through motion estimation -- Conclusion and future work.
Sommario/riassunto	This book characterizes key technologies and applications of human-robot interaction in smart manufacturing and provide references for facilitating paradigm shift and the sustainable development of human-machine interaction. It includes mainly four aspects: human motion perception and reconstruction, analysis of human motion, intuitive human-robot teleoperation based on IMU-based motion perception, and enhanced human-robot collaboration through motion estimation. Human-robot interaction has great potential for development based on key technologies for digitization, networking, and intelligentization. It is crucial to utilize the advantages of human to improve the human-robot system’s capabilities. The book features detailed illustrations, informative tables, and research algorithms designed to facilitate understanding of complex concepts. These elements not only enhance the reading experience but also serve as valuable references for applied research and real-world implementation. The book will be useful for advanced students, researchers, engineers, developers, and

entrepreneurs interested in human-robot interaction research and technologies.