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Sommario/riassunto	Annotation Device-to-device (D2D) communications have attracted a great deal of attention from researchers in recent years. It is a promising technique for offloading local traffic from cellular base stations by allowing local devices, in physical proximity, to communicate directly with each other. Furthermore, through relaying, D2D is also a promising approach to enhancing service coverage at cell edges or in black spots. However, there are many challenges to realizing the full benefits of D2D. For one, minimizing the interference between legacy cellular and D2D users operating in underlay mode is still an active research issue. With the 5th generation (5G) communication systems expected to be the main data carrier for the Internet-of-Things (IoT) paradigm, the potential role of D2D and its scalability to support massive IoT devices and their machine-centric (as opposed to human-centric) communications need to be investigated. New challenges have also arisen from new enabling technologies for D2D communications, such as non-orthogonal multiple access (NOMA) and blockchain technologies, which call for new solutions to be proposed. This edited book presents a collection of ten chapters, including one review and nine original research works on addressing many of the aforementioned challenges and beyond.