



## Recent Advances in Cellular D2D Communications

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### **Message from the Guest Editors**

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.

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 5G expected to be the main carrier for IoT traffic, 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 millimeter-wave and massive MIMO (multiple-input and multiple-output) systems, which call for new solutions to be proposed. The aforementioned matters are just a few examples of the many challenges that remain to be addressed.





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## Message from the Editor-in-Chief

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