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Exploiting Distribution of Channel State Information for Accurate Wireless Indoor Localization☆

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Abstract

Wi-Fi fingerprint based wireless indoor localization has received increasing research attention in recent years. Most existing works utilize the received signal strength (RSS) as the fingerprint of a particular position. However, RSS provides only very coarse-grained property of the received signal and thus cannot achieve high localization accuracy. Recently, some works attempt to improve the localization accuracy of Wi-Fi fingerprinting by utilizing the fine-grained channel state information (CSI) that can be obtained on commercial-off-the-shelf (COTS) network interface cards. These stud-

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