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zhengxt_paper@163.comTHE PERFORMANCE ANALYSIS OF 5G NETWORK BASED ON LEO CONSTELLATION WITH
JOINT SIMULATION**Abstract**

The 5G system should support scenario including very high data rate communications, a large number of connected devices communication, and ultra-low latency and high reliability communication and provides ubiquitous access to high data services from any device, anywhere, anytime. Satellite can offer complementary connectivity options and seamless user experience, and provide important benefits when integrated in the overall 5G system, owing to its intrinsic advantages including universal coverage, multicasting and broadcasting capability. But the latency for GEO and MEO satellites can not satisfy the requirement of 5G application scenarios. The LEO constellation such as OneWeb can provide capacity, low latency services suitable for 5G network access. However, the QoE of seamless integration of heterogeneous network is A big challenge. This paper analysis the network QoE performance including delay, jitter, BER with STK, Opnet, Matlab joint simulation method for the LEO constellation – 5G heterogeneous network. The result shows that with sophisticated network management the joint network can meet expected key performance indicators of 5G.