

# Mejora de la calidad de experiencia en redes LTE multi-portadora

C. Gijón, M. Toril, S. Luna-Ramírez, M. L. Marí-Altozano

{cgm@ic.uma.es, mtoril@ic.uma.es, sluna@ic.uma.es, mlma@ic.uma.es}

Dpto.de Ingeniería de Comunicaciones. Universidad de Málaga. Campus de Teatinos, 29071, Málaga.

In multi-tier cellular networks, effective handover schemes are required to assign users to the most adequate layer. In this paper, a data-driven strategy for traffic steering is proposed to improve the overall Quality of Experience (QoE) in multi-carrier Long Term Evolution (LTE) networks. Unlike classical approaches, traffic steering is tackled by tuning Reference Signal Received Quality (RSRQ)-based inter-frequency handover margins. The tuning process is driven by a novel indicator derived from connection traces showing QoE changes in the vicinity of handovers. Method assessment is carried out in a dynamic system-level simulator implementing a real multicarrier LTE scenario. Results show that the proposed algorithm significantly improves QoE figures from the initial operator solution.