

Ultra-Reliable Low Latency Communications

Mots clés : Array

- **Directeur de thèse :** Florian Kaltenberger
- **Co-encadrant(s) :**
- **Unité de recherche :** Laboratoire de recherche d'EURECOM
- **Ecole doctorale :** École Doctorale Informatique, Télécommunications, Électronique de Paris
- **Domaine scientifique principal:** Sciences et technologies de l'information et de la communication

Résumé du projet de recherche (Langue 1)

The goal of this PhD thesis is to evaluate the existing higher reliability and low latency communication strategies (URLLC) as standardized in 3GPP Rel-15, both from a theoretical and practical aspects using tools from information and communication theory as well as simulation and prototyping tools such as the OpenAirInterface platform. This helps to identify the good candidate transmission schemes for higher reliability and low latency communication and find the gaps where these scheme lack meeting the reliability-latency targets. This analysis then leads to propose enhanced optimized schemes for such reliability-latency critical systems, building upon the ideas mentioned above, filling the gaps to improvised targets. The results will be validated through link and system simulations. The proposed techniques and solutions will be contributed as proposals to the 3GPP and potentially applied as patents by TCL.