Universidad de Valladolid

Q-CAYLE COMUNICACIONES CUÁNTICAS

Finite-size General Security for Continuous Variable Quantum Key Distribution

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Abstract: Continuous variable quantum key distribution (CV QKD) has the potential to provide information-theoretic security based on physical principles, as well as optimal scalability by using widely available telecom technologies. While the implementation of CV QKD is significantly simpler than that for protocols based on Gaussian modulation, proving their finite-size security against general attacks represents a challenge. In this seminar, we will discuss how the so-called entropy accumulation theorem can be used to prove finite-size security against general attacks for CV QKD protocols based on a discrete modulation, as well as follow-up approaches that reduce the assumptions in the model and simplify the analysis..

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