UT AUSTIN PORTUGAL 2019 ANNUAL CONFERENCE

MASTERCLASS I
QUANTUM COMPUTING: PRINCIPLES, ALGORITHMS AND APPLICATIONS

Lecture 3 "Application: Quantum Information and Cryptography"
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In this talk we survey several results on quantum information and cryptography performed at Instituto Telecomunicações.

We start from basic communication and cryptographic problems, such as: semi-quantum key distribution, bit commitment, oblivious transfer, contract signing. Then we present some of the proposed quantum solutions, together with the techniques to achieve security.

Finally, we discuss their implementation.